



ANNUAL REPORT
OF THE
COMMISSIONERS OF INLAND FISHERIES
1911

HARVARD UNIVERSITY.



LIBRARY

OF THE

MUSEUM OF COMPARATIVE ZOÖLOGY.

29150

GIFT OF

Commissioners

April 11, 1912.

State of Rhode Island and Providence Plantations.

LIBRARY
FORD COLLEGE
CAMBRIDGE, MASS.
FORTY-SECOND ANNUAL REPORT

OF THE

COMMISSIONERS OF INLAND
FISHERIES,

Compliments of the

Commissioners of Inland Fisheries.

PROV

PROVIDENCE, R. I.

E. L. FREEMAN COMPANY, PRINTERS.

1912.

State of Rhode Island and Providence Plantations.

LIBRARY
HARVARD UNIVERSITY
CAMBRIDGE, MASS.
FORTY-SECOND ANNUAL REPORT

OF THE

COMMISSIONERS OF INLAND
FISHERIES,

MADE TO THE

GENERAL ASSEMBLY

AT ITS

January Session, 1912.

A

PROVIDENCE, R. I.

E. L. FREEMAN COMPANY, PRINTERS.

1912.

COMMISSIONERS OF INLAND FISHERIES.

CHARLES W. WILLARD, Westerly, *President*.
WILLIAM H. BOARDMAN, Central Falls, *Vice President*.
WILLIAM P. MORTON, Providence, *Secretary*.
ADELBERT D. ROBERTS, Woonsocket, *Auditor*.
ISAAC H. CLARKE, Jamestown, *Treasurer*.
DANIEL B. FEARING, A. M., Newport.
WILLIAM R. ROSE, Tiverton.

DEPUTY COMMISSIONERS.

WILLIAM T. LUTH, Newport, *Chief Deputy*.
JAMES HARRINGTON, Newport.
J. B. ALLEN, New Shoreham.
A. V. WILLIS, New Shoreham.

SUPERINTENDENT OF HATCHERY AND EXPERIMENT STATION.

EARNEST W. BARNES, Wickford.

CONTENTS.

	PAGE.
Personnel of the Inland Fisheries Board.....	IV
General Report for 1911.....	1
Financial Statement.....	4
CHAPTER I. Stocking of Fresh-Water Ponds and Streams.....	6
General Considerations.....	6
Need of a Fresh-Water Hatchery.....	6
Trout and Black Bass, 1911.....	7
Landlocked Salmon.....	8
Introduction into Rhode Island Waters.....	8
Outline of Natural History.....	10
CHAPTER II. Collection of Data and Statistics Relating to the Commercial Fisheries.....	12
General Condition of the Fisheries.....	12
Tables of Shipment of Sea Products from Newport.....	13, 14
Lobster Industry.....	15
Comparative Table of Number of Pounds and Number of Pots, 1904-1911.....	15
Classified Table of Number of Pounds of Lobsters, 1904-1911....	16
Number of Boats, Pots and Men Engaged in Rhode Island, 1911..	17
Chart showing the Extension of State Lines in Watch Hill District.	
List of Lobster Licenses Granted.....	18
Beam Trawling.....	27
Salt Water Line-Fishing.....	27
Fish Traps Set in Rhode Island, 1911.....	28
Table of Number and General Distribution since 1908.....	29
List of Traps and Owners, 1911.....	30
Block Island Traps.....	30
Watch Hill Traps.....	30
Off-Shore Traps.....	30

Chart I, Block Island Traps.	
Chart II, Watch Hill Traps.	
Chart III, Narragansett Bay Traps.	
Other Traps.....	32
Deep-Water Fishing off Newport, 1911.....	35
Table VII, Calendar of Scup Season, 1905-1911.....	37
Table VIII, Calendar of Mackerel Season, 1905-1911.....	37
Table IX, Appearance of "Tinker" Mackerel, 1905-1911.....	38
Table X, Catch of Squiteague in Soup Traps, 1905-1911.....	38
Table XI, First Appearance of Various Marketable Fish in Traps off Newport, 1905-1911.....	38
Hon. D. B. Fessing's Collection of R. I. Fishes.....	39
CHAPTER III. Enforcement of State Laws.....	40
List of Prosecutions.....	40
Summary of Supreme Court Decision on Lobster License Law.....	41
Changes made in the Fisheries Laws.....	42
CHAPTER IV. Physical and Biological Conditions of Narragansett Bay..	43
Chart showing Average Weekly Temperature of Air and Sea Water at Wickford, 1911.	
CHAPTER V. The Dissemination of Information Concerning the Aquatic Resources of the State.....	44
CHAPTER VI. Co-operation with other Fisheries Authorities.....	45
CHAPTER VII. Propagation of Lobsters at the Wickford Experiment Station.....	46
CHAPTER VIII. Propagation of Marine Fisheries.....	48
The Winter Flounder.....	48
APPENDIX	
A. The Decision of the Supreme Court in <i>State vs. Constantine Kofines et al.</i>	49
B. List of Federal and State Fisheries Authorities, 1911.....	78
C. Titles of Special Papers Published by the Commissioners of Inland Fisheries, 1897-1912.....	87

Commissioners was morally obligated to protect these legally licensed lobstermen from the encroachments of the non-licensed or unscrupulous fishermen. Furthermore, when it is recalled that not only the laws governing the lobster industry, but those regulating many branches of the general fisheries as well are dependent for their enforcement upon the Commissioners of Inland Fisheries, the chaotic state which would have resulted in our fisheries from the failure to appoint deputies to enforce the laws can readily be imagined. The Commissioners, therefore, acting under the advice of the attorney-general and prominent members of the legislature, continued to employ their deputies. As will be seen in the Chapter on the "Enforcement of the State Laws," a number of violators of the law were brought to justice. This, however, does not correctly represent the work of the deputies, as it is obviously of greater importance to prevent lawlessness than to punish lawbreakers.

At the Wickford hatchery a continuance of a large portion of the work as a matter of economy and conservation was imperative. The egg lobsters, which had been purchased the preceding fall and had been cared for and fed through the winter in order to obtain an early supply of fry for the use of the Commissioners at their hatchery, were near the point of hatching their eggs. To have released them would have entailed a loss to the State not only in the time and expense of providing and keeping them, but in the still greater loss in the failure to conclude the experiment. At the expense of weeks of labor by the superintendent and his men, the lobster rearing plant had been overhauled and placed in readiness for the opening of the season. Additional apparatus, consisting of new gears, shafting, rafts and cars, had been added with a view of largely increasing the output of young lobsters. The launches, boats and all paraphernalia had been put in good condition. In fact the entire station had been put in such state as would amply warrant more efficient and economical operation and an increase over the output of any previous year. It is necessary, each year, that all this work shall be done weeks in advance in order to handle the lobsters when their eggs are ready for hatching.

Also in order to secure the services of efficient employees during the time when the Commission needs them most, they must be hired in advance. This your Commission had done.

In view of the above facts it would have been an obviously unwise and even a censorable act to have abandoned the work, discharged all employees and have allowed the buildings and apparatus to suffer from lack of care. Furthermore, the entire winter's preparatory work and such experiments as had been carried on through the winter, or for even longer, would have resulted not only in loss of money expended, but also in the loss of the valuable experiments themselves.

After careful consideration the Commission decided to carry on the work under somewhat restricted conditions. Employees were notified that funds were exhausted, that it would be necessary to reduce the force to the smallest possible number and that even those retained would continue largely at their own risk as the Commissioners would be able to advance from their private fund only a portion of their salary. Under this arrangement the superintendent and one man was retained throughout the season as absolutely necessary and during the height of the season another assistant was employed for a time. No egg lobsters were thereafter received, excepting such as were voluntarily furnished to the Commission by the fishermen themselves who assumed all risk of payment therefor. These, with the lobsters that were carried through the winter and such as were purchased prior to the veto of the appropriation furnished the eggs for the obviously restricted use of the hatchery.

A detailed account of the year's work of the Commission will be found under the different headings* in the main body of the report, and has followed the usual lines, subject to the restrictions mentioned above. As a very brief summary of the work it may be said that:

*A table of contents will be found in the front of this report which will greatly facilitate the finding of special topics.

Approximately eighty million flatfish fry were hatched at the Wickford station and liberated in suitable waters of the State.

Three hundred thousand lobsters, in round numbers, were reared to the bottom-seeking stages.

Twenty thousand landlocked salmon eggs for which arrangements had been made prior to the veto of the appropriation, were hatched, reared to the fingerling stage and distributed in suitable lakes in the State.

Your Commission is very much pleased at the recent decision of the supreme court sustaining the constitutionality of the lobster license law. (A brief summary of this decision will be found in the report under the heading "Enforcement of State Laws," and a reprint of the decision will be found in the appendix at the close of the report.)

Occasion is here taken to thank the New York, New Haven and Hartford Railroad Company for its courtesy in granting free transportation of fry and messengers.

The financial statement for the year 1911 is as follows:

State of Rhode Island in account with the Commissioners of Inland Fisheries.

DEBIT.

1911.

Mar. 15.	To expenses of the Commissioners from January 1 to March 15.....	\$200 80
	To expenses and services of deputies under the law from January 1 to March 15.....	394 75
	To expenses at laboratory from January 1 to March 15.....	557 39
		\$1,152 94

CREDIT.

1911.

Mar. 15. By received from the State Treasurer..... \$1,152 94

Amount received for 321 lobster licenses, at \$5.00 each,
as per receipts from the State Treasurer.. 1,605 00

Respectfully submitted,

CHAS. W. WILLARD,
WILLIAM H. BOARDMAN,
DANIEL B. FEARING,
ADELBERT ROBERTS,
ISAAC H. CLARKE,
WM. P. MORTON.

CHAPTER I.

THE STOCKING OF PONDS AND STREAMS WITH FRESH-WATER FISHES.

In view of the moderate amount of money that has been expended in past years for restocking the lakes, ponds and streams of the State, and for the enforcement of protective laws, your Commission believes that the fresh-water fisheries will compare favorably with those of adjoining states. Aside from the amount paid for the annual distribution of brook trout, no money has been expended in the purchase of fresh-water fishes for many years. However, through the courtesy of the United States Bureau of Fisheries in furnishing several consignments of black bass, and through the personal efforts of members of the Commission who from time to time have transferred adult fish from one pond or stream to another, other species besides the brook trout have received wide distribution with very gratifying results.

SYSTEMATIC INVESTIGATION OF OUR FRESH-WATER.

Your Commission believes that the time has come when a more systematic investigation should be made of the fresh-water fisheries of Rhode Island with a view to the introduction into our ponds and streams of such species as will furnish not only sport to the angler, but will also provide a supply of food fish for the large and constantly increasing army of working people to whom a few pounds of fish caught after the day's work is over, means, besides the pleasure and recreation, a saving of the price of a meal for the family.

A FRESH-WATER HATCHERY NEEDED.

With the exception of Rhode Island, all of the New England States own their hatcheries for one or more varieties of fresh-water fishes. Your Commission does not believe it necessary, expedient, or a matter of economy for the State to own and operate a hatchery for brook

trout, as the American Fish Culture Co., at Carolina, R. I., owns one of the best equipped and most successful trout hatcheries in the country and has always made favorable terms to the Commission for its annual requisitions of fish for restocking purposes.

In regard to black bass, however, the situation is entirely different. The Commission receives annually many requests for distribution of this very valuable species of food fish, but the majority of these requests could not be granted owing to the extreme difficulty in obtaining anywhere near an adequate supply. Nearly all the government and commercial black bass hatcheries are located at remote distances and, considering prices for fish of suitable size and expenses of transportation, the outlay is almost prohibitive.

Your Commission believes that if the State could own or lease a small pond near to its Experiment Station so that the supervision and necessary work could be done by our superintendent and his employees, a comparatively small initial outlay and annual expenditure would provide an output of young black bass and perch that would be ample for present needs.

With the increasing popularity of outdoor pursuits—of which fishing plays an important part—and with the growing facilities of trolleys, automobiles, motorcycles, etc., affording easy access to remote ponds, comes the necessity for extra effort along the lines of propagation and restocking and the need of rigid enforcement of protective laws.

TROUT AND BLACK BASS IN 1911.

It has been the custom of your Commission to expend annually a portion of its appropriation for the restocking of the streams and lakes of the State with trout and black bass. While the Commission is still of the opinion that such expense is fully warranted, yet, owing to the lack of appropriation of funds and to the fact that there would be no actual moneyed loss to the State by omitting this work, it was early decided that this branch of work would not be continued this year.

It is confidently expected that the usual natural increase in black bass in those waters which have been stocked by your Commission will be considerably augmented by the changes in the State law that were recommended by the Commission and were passed at the last session. This change protects both the immature and the spawn fish by restricting the legal length to those over ten inches and making it illegal to possess black bass between January 1st and July 1st.

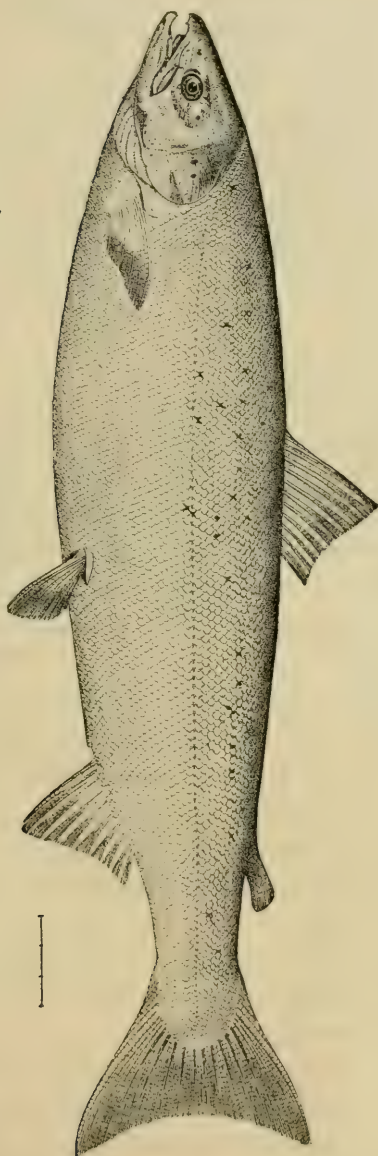
LANDLOCKED SALMON.

INTRODUCTION INTO RHODE ISLAND WATERS.

As early as 1876 an attempt was made by your Commission to introduce landlocked salmon into Rhode Island waters. Since then occasional efforts (about six in number) have been made, the last in 1900. That these attempts were not attended with as good results as might be desired was due, no doubt, to two general reasons. In the first place, requiring, as this fish does, low temperature of water and suitable inlets, few ponds or lakes in Rhode Island seem to possess these qualities. On the other hand, occasional catches have revealed the fact that some of the fish which were planted have lived and thrived and perhaps it is not unjust to say that our local fishermen have not employed suitable methods of capture. At any rate your Commission was not convinced that the experiments had been as thorough as possible. It was therefore decided late in 1910 to make another attempt, using the fingerling size, instead, as was most often the case in previous attempts, of using fry. Twenty thousand eggs were obtained through the courtesy of the United States Bureau of Fisheries and were hatched and reared to fingerlings with small loss by the American Fish Culture Company. These were distributed to those ponds which seem best adapted to the requirements of landlocked salmon.

With the hope of creating interest in this fish and for the benefit of those who are not acquainted with its peculiarities, a cut is inserted and a few general facts are given in regard to its habits and natural history.

PLATE I.—A salmon.



THE LANDLOCKED SALMON.

(Salmo salar sebago).

PLATE NO. 1.

“The old salmon of the sea who begat thee long ago in these inland waters became a backslider, descending again to the ocean, and grew gross and heavy with coarse feeding. But thou, unsalted salmon of the foaming floods, not land-locked as men call thee, but choosing of thine own free will to dwell on a loftier level in the pure, swift current of a living stream, hath grown in grace and risen to a better life.”—HENRY VAN DYKE.

A Variety of the Atlantic Salmon.—The landlocked salmon is generally conceded, at the present time, to be a variety of the Atlantic salmon (*Salmo salar*), and not a distinct species. In fact, so slight and uncertain are the structural differences between the two forms, that descriptive text books either avoid a statement or give only general differences. Among these the most pronounced are:

Absence, in the landlocked form, of the instinct to migrate to the sea.

The adult of the landlocked variety is smaller than the Atlantic adult and resembles quite closely the “grilse” or adolescent stage of the Atlantic salmon with the tail usually a little wider and the dorsal or back fin somewhat higher.

The coloring is a little more pronounced in the landlocked specimens and when they are fresh from the water the sheen on the back and sides is much greater.

It has often been pointed out that the differences are such as might have been brought about by a somewhat unnatural confinement in fresh water. The usually accepted theory is that long ago some natural phenomena barred the return of the salmon to the sea and in consequence of this necessitated change of habits and environment, the differences between them and the parent form were brought about. It is pointed out that the habits of the Atlantic salmon in ascending as it does almost impassible falls in order to reach fresh

water and spawn, coupled with the fact that the fry pass the first year or two of their life in fresh water, would make such a landlocking possible. In mining operations on the Pacific coast the Pacific salmon have often been artificially landlocked and in these cases have lived and spawned. On the other hand in certain lakes where the landlocked salmon exist that are not at the present time cut off from the sea, there seems to be no evidence that such interruption of water passage has taken place, and it is often difficult to see just how such conditions could occur.

Geographical Distribution.—The only known natural occurrences of landlocked salmon are in the lakes of North Eastern America and certain lakes in Sweden. In the United States they are found only in the lakes of Maine and are known as the Schoodic or Sebago landlocked salmon. The Canadian form differs a little from the Maine variety, and is known as the “ouananiche.”

The Sebago salmon has been quite widely distributed throughout New England by artificial introduction.

Habitat.—The clear cool water of deep lakes is the environment most adapted to the landlocked salmon. They have been known to endure a temperature of over 80°, but refused to eat when the temperature became over 75°.

Reproduction.—The spawning season occurs between October and November. The fish usually select a place where the water is shallow and rapid and the bottom gravelly. In different lakes both incoming and outgoing currents have been selected. The eggs are heavy and non-adhesive and are slightly over one-quarter inch in diameter. The average number of eggs per fish is about 1,500, and many as 4,000 to 5,000 have been obtained from one fish. The eggs hatch in about 169 days at a temperature of 37°.

Food. Carnivorous. Usually insects and small fish.

Size. The average size is about three pounds. The largest on record was a male caught at Sebago Lake which was said to weigh 27 pounds.

Game Qualities. As a game fish the landlocked salmon is said to surpass the larger Atlantic salmon and give splendid sport to the fly fisherman as "they jump high and often and are very strong for their size." Nearly all sportsmen who are experienced with them attest the fact that they are wise and wary. The same flies and tactics cannot always be relied upon. Trolling with the "phantom minnow," or with the "spoon," must often be resorted to. The best time for fly fishing for landlocked salmon is in the early spring.

CHAPTER II.

THE COLLECTION OF DATA AND STATISTICS RELATING TO THE COMMERCIAL FISHERIES.

Your Commission has spared no effort to make the data contained in this chapter as accurate as possible. It must however be borne in mind that some of the data is far from complete. It is regrettable that some such legislation as exists in neighboring states has not been passed in our State that will make this valuable portion of the work of the Commission complete and accurate. Numerous requests, both from this country and abroad, have been received, requesting data in regard to the commercial fisheries of Rhode Island, and while we have replied as best we could, still, in certain cases, our answers were only approximately correct.

GENERAL CONDITION OF THE FISHERIES.

In general, the fishing season in Rhode Island waters was very poor in 1911. Among the "stub" trap fishermen within the bay the season started well, but the catches soon diminished. Off Newport the appearance of various fishes was late and although there was a considerable variety, the runs were not very large. Around Block Island, swordfish and bluefish were more plentiful this year

than usual and in the latter part of the summer the horse-mackerel could be seen leaping out of the water almost any day.

The following tables of the shipment of sea products from Newport are submitted as heretofore:

TABLE I.

Table Showing the Amount of Fish, Lobsters, and Other Sea Products Shipped Monthly from Newport by the Principal Transportation Companies During the Year 1911.

1911.	Barrels of Fish.	Barrels of Lobsters.	Barrels of Crabs.	Barrels of Oysters.	Number of Sturgeon.	Barrels of Horse-mackerel.	Number of Sharks.	Barrels of Turtles.	Barrels of Clams.	Number of Swordfish.	Barrels of Sounds.	Barrels of Conches.	Barrels of Mussels.
January	871	8		90									
February	587	10		94									
March	746½	2	2	71									
April	1,196	15½		42					6				
May	10,303	243½	4	6	19				9				
June	12,659½	443½	8		8	3	1	½	9	86			
July	2,811½	676	15		18	6		1	1	337	1		
August	2,027½	588½	8			40	31	3	1	81	1		
September	3,261	235½	9	45	3	15			2	5	2		
October	2,644	68	2	97	6	11			1			30	
November	1,464		1	198	2	4						33	
December	1,168	8	1	83								8	1
Total, year 1911 . . .	39,141	2,281½	50	726	56	79	32	4½	29	509	4	71	1

TABLE No. 2.

Table Showing Shipment of Fish, Lobsters, and Other Sea Products from Newport for the Last Twenty-five Years.

	Barrels Fish.	Barrels Lobsters.	Barrels Quahaugs.	Barrels Crabs.	Barrels Clams.	Barrels Spawn.	Barrels Sounds.	Number Sword-fish.	Number Sturgeons.	Number Horse-mackerel.	Barrels Turtles.	Number Sharks.	Number Porpoise.	Barrels Eels.	Barrels Oysters.	Conches.	Mussels.
1887.....	16,657	834															
1888.....	15,033	1,161															
1889.....	19,306	2,047															
1890.....	8,933	2,650															
1891.....	18,032	2,204															
1892.....	26,832	2,123															
1893.....	24,452	1,399															
1894.....	17,769	2,392															
1895.....	24,622	2,119															
1896.....	20,425	1,728						143									
1897.....	52,098	2,039						45									
1898.....	34,065	1,163						74									
1899.....	34,917	4,143						162									
1900.....	38,184	4,793						166									
1901.....	50,500	4,393						21									
1902.....	53,986	4,342		1				179									
1903.....	54,384	1,474		84				164	11	79				18			
1904.....	62,106	1,921		45	8			554		336							
1905.....	50,127	977		122	80	3	23	723	26	91		1	1				
1906.....	60,855	1,306½	233	17	15	2	6	811	11	40	2	12	1		112		
1907.....	59,674	1,529		322	12	8	24	263	13	112	1	12			18		
1908.....	48,814	2,517½		287	23		21	198	3	93	5	3					
1909.....	46,031	3,252½		145	14		29	61	6	21		5			673		
1910.....	53,154	427		112	58		5	38	17	47	5	37			794	42	5
1911.....	39,141	2,281½		50	29		4	509	56	79	4½	32			726	71	1
Total.....	930,097	55,226	233	1,185	239	13	112	4,011	143	898	17½	101	2	18	2,323	113	6

THE LOBSTER INDUSTRY.

The lobster season of 1911 was slightly better than that of 1910. (See Tables III, IV and V, on pages 15, 16 and 17). Not only was this true with reference to the total number of pounds marketed—which was approximately 60,000 pounds greater than in 1910—but was noticeable also in the average number of pounds per lobster pot. In spite of the fact that there was an increase of over 1,200 pots set this past year, there was a gain of one pound per pot. Bait was a serious problem, especially in the early part of the season on account of the scarcity of “trash fish” in the traps.

The following tables have been compiled from data furnished for the greater part by William T. Luth, Chief Deputy Lobster Commissioner, and at the conclusion of these a list of the licensed lobstermen is given as prescribed by law:

TABLE III.

Table Comparing the Number of Pounds of Lobsters, Number of Pots, and Average Number of Pounds Per Pot, for the Years 1904-1911.

YEAR.	Total Catch in Pounds.	Newport.	Number of Pots.	Average Number of Pounds. Per Pot.
1904.....	376,994	226,994	7,935	45
1905.....	449,300	301,659	9,180	48
1906.....	671,914	353,573	11,355	59
1907.....	929,423	581,189	12,104	76
1908.....	1,471,344	665,009	20,011	73
1909.....	1,342,983	757,837	23,220	57
1910.....	833,683	489,815	22,091	37
1911.....	891,886	513,076	23,294	38

TABLE IV.

The Number of Pounds of Lobsters Caught in Rhode Island for the Years 1904-1911.

FISH MARKETS.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
Newport (wholesale)	147,494	179,427	245,860	472,575	524,746	572,705	351,675	390,702
(retail)	79,500	122,232	107,713	108,614	100,263	185,132	148,140	132,374
Sakonnet (wholesale)		97,641	163,341	193,243	191,218	191,731	67,038	63,000
Tiverton (wholesale)					286,724	91,107	60,785	84,000
Block Island (wholesale) }								
Narragansett Pier, (wholesale)	150,000	100,000	155,000	155,000				
Watch Hill (wholesale)								
Point Judith (wholesale) }								
Block Island (wholesale)					248,330	236,000	160,300	159,000
Point Judith (wholesale)								
Watch Hill (wholesale)						66,318	54,800	92,810
Narragansett Pier, (wholesale)								
	376,994	499,300	671,914	929,432	1,391,281	1,342,993	833,683	891,886



Chart showing Extension of State Lines in Watch Hill District.

TABLE V.

Number of Pots, Boats and Men Engaged in Lobster Fishing in the State of Rhode Island for 1911.

LOCATION.	Men.	Boats.	Pots.
Block Island.....	67	41	9,825
Bristol.....	7	5	248
Castle Hill.....	1	31	30
Charlestown.....	4	3	120
Conimicut.....	1	1	60
Dutch Island.....	1	1	20
Hamilton.....	2	2	130
Jamestown.....	12	11	511
Little Compton.....	9	8	515
Middletown.....	5	5	182
Narragansett Pier.....	20	18	1,405
Newport.....	120	86	6,306
Oakland Beach.....	2	2	125
Peacedale.....	2	2	120
Portsmouth.....	5	5	205
Providence.....	1	1	30
Prudence Island.....	4	3	105
Sakonnet Point.....	2	2	160
Saunderstown.....	8	5	322
Tiverton.....	7	6	420
Wakefield.....	13	8	895
Warren.....	10	6	365
Watch Hill.....	1	1	30
Westerly.....	15	155	1,110
Wickford.....	3	2	55
Total.....	321	240	23,294

*In addition to these about ten boats were fishing just beyond the three mile limit. The bulk of their lobsters were brought into Rhode Island.

List of Lobster Licenses Granted in 1911.

License No.	Name.	Location.
1.	Joseph L. Eaton	Saunderstown.
2.	Joseph L. Eaton, Jr.	"
3.	Henry K. Littlefield	Block Island.
4.	Victor D. Gray	Tiverton.
5.	Samuel E. Gray	"
6.	William H. Dodge	Block Island.
7.	Louis E. Smith	"
8.	Earle A. Smith	"
10.	Arthur E. Dodge	"
11.	Prentice A. Lanphear	Westerly.
12.	Wilbur Elwin Dodge	Block Island.
13.	George Addison Rose	"
14.	Daniel M. Thompson	Prudence Island.
15.	Albert W. Smith	Block Island.
16.	G. E. Smith	"
17.	S. A. Littlefield	"
20.	E. A. Hoxie	"
21.	John E. Littlefield	"
22.	Rouse B. Dodge	"
23.	O. L. Mitchell	"
24.	Simeon A. Ball	"
25.	Vernie Willis	"
26.	Johannes Jacobson	"
28.	Ethan Dodge	"
30.	Howard Fisher	"
31.	Thomas Norris	Warren.
32.	Christian Nickelson	Block Island.
33.	Dwight A. Dunn	"
34.	Jessie A. Lewis	"
36.	Samuel B. Dickens	"
37.	Arthur C. Dickens	"
38.	Albert S. Hayes	"

License No.	Name.	Location.
39.	Edgar Littlefield.....	Block Island.
41.	S. Martin Rose, Jr.....	"
42.	Harry R. Seymore.....	Warren.
43.	Albert L. Anderson.....	Block Island.
44.	Wilson D. Maine.....	Westerly.
45.	Gust Anderson.....	Block Island.
46.	John Anderson.....	"
48.	Arthur Earl Larkin.....	Narragansett Pier.
49.	Christian Francis.....	Newport.
53.	Stannos Janitos.....	"
54.	Park A. Slate.....	Block Island.
55.	Irving T. Latham.....	"
58.	Edward Evanson.....	"
59.	Joseph Tomelsk.....	Newport.
60.	Willard F. Mitchell.....	Block Island.
61.	David A. Mitchell.....	"
62.	Irving A. Ball.....	"
63.	Thaddeus A. Ball.....	"
64.	Chester A. Littlefield.....	"
65.	Walter A. Littlefield.....	"
67.	Stanton C. Allen.....	"
68.	Emory A. Dickens.....	"
69.	Joshua Smith.....	"
71.	Abel Edward Allen.....	"
72.	Eleazer Allen.....	"
73.	Parker Mitchell.....	"
74.	Ezra B. Dunn.....	"
75.	Barzilla B. Dunn.....	"
76.	John F. Hayes.....	"
77.	Emanuel Allen.....	"
79.	Roswell Mitchell.....	"
81.	Howard Wiley.....	Newport.
82.	Lyman Hall.....	Westerly.
83.	H. Atmore Smith.....	Wakefield.

License No.	Name.	Location.
84.	Richard Steadman.....	Block Island.
85.	Silas Hall.....	"
86.	Charles Hall.....	"
87.	John Sarris.....	Newport.
88.	Dimitros Damascus.....	"
89.	George Stamatos.....	"
90.	Oscar S. Dykstra.....	Wakefield.
91.	Oscar S. Dykstra.....	"
92.	Bernal H. Dodge.....	Block Island.
95.	John A. Papa.....	Newport.
94.	George F. Tew.....	"
95.	Walter D. Tew.....	"
96.	Eugene Tew.....	"
97.	Edward Roy.....	"
98.	Bub Pettin.....	"
99.	Peter Andrews.....	"
100.	Peter Palmer.....	"
101.	Perikles Booras.....	"
102.	John Conisotas.....	"
103.	Raktakis Raftakis.....	"
104.	Restcome E. Peabody.....	Middletown.
105.	Beck Anderson.....	Newport.
107.	Nicholas Alexandre.....	"
108.	Anthony Matthianos.....	"
109.	Harry Violet.....	"
110.	John B. King.....	Jamestown.
111.	John B. Sherman.....	Peacedale.
112.	Jerome T. Blount.....	Newport.
113.	James P. Hennessey.....	Peacedale.
114.	John Johnson.....	Newport.
115.	Augustus Caswell.....	"
116.	R. G. Burdick.....	Narragansett Pier.
117.	John S. Wilcox.....	Little Compton
119.	Nicholas Trocotas.....	Newport.

License No.	Name.	Location.
120.	George Lathrop.....	Prudence Island.
121.	H. F. Eaton.....	Saunderstown.
122.	R. R. Matterson.....	"
123.	Wm. A. Matterson.....	"
124.	Archie C. Matterson.....	"
125.	Lewis Miller*.....	"
127.	Thomas Nickerson.....	Sakonnet Point.
128.	Frank W. Parmele.....	Castle Hill.
129.	Guy Avalone.....	Newport.
130.	Edgar F. Grinnel.....	"
131.	Jack M. Noranka.....	Portsmouth.
132.	Amasa Johnson.....	Jamestown.
133.	Charles Lee Pendleton.....	Bristol.
134.	Nicholas Julias.....	Newport.
135.	Lazarus Brown.....	"
136.	Nicholas Mataronas.....	"
137.	Domotaris Domotaris.....	"
138.	Vasilas Hanos.....	"
139.	E. B. Durfee.....	"
140.	John Gionis.....	"
141.	John Violet.....	"
142.	Thomas James.....	"
143.	Emanuel Allen.....	Block Island.
144.	Mark Violet.....	Newport.
145.	Steloi J. Palmer.....	"
146.	Richard Currie.....	Charlestown.
148.	Ernest D. Andreas.....	Newport.
150.	Edward N. Lawton.....	"
151.	Nicholas K. Card.....	"
152.	Jacob Anderegg.....	"
153.	Demetre John.....	"
154.	Vasilas Paris.....	"
156.	Constantine Conomus.....	"

*License Revoked.

License No.	Name.	Location
157.	John McDonald	Middletown.
158.	Prescott Moldin	"
159.	Angelo J. Palmer	Newport.
160.	George Woviotis	"
161.	Angelo Maniotis	"
162.	William Holt	"
163.	Herbert J. Peckham	Middletown.
164.	Nicholas Salonikas	Newport.
165.	Stamos Salonikas	"
166.	John D. Doyle	"
167.	Joseph S. Nones	"
168.	Constantine Hanos	"
169.	Alexandro J. Fludder	"
170.	Walter Chace	"
171.	Nicholas Martin	"
172.	William H. James	"
178.	Jesse E. Crowell	Bristol.
179.	Manuel Krostidalo	"
180.	Floyd Huftalen	Warren.
181.	Marcus Huftalen	"
182.	Fotis Tregonis	Newport.
183.	William C. Allen	Narragansett Pier.
184.	Isaac A. Allen	"
186.	G. A. G. Brown	Jamestown.
187.	Oder S. Dunn	Block Island.
188.	R. A. Sanchazee	"
190.	O. Arthur Kitchen	Newport.
192.	John Grimes	Block Island.
193.	Irving T. Wilcox	Tiverton.
196.	Everett A. Willis	Block Island.
198.	Jewett R. Saunders	Jamestown.
201.	Langworthy H. Pearce, Jr.	Narragansett Pier.
203.	Joseph Silvia	Tiverton.
204.	H. Hillyer Burdick	Narragansett Pier.

License No.	Name.	Location.
205.	Walter H. Munro	Warren.
206.	Edward A. Fitzgerald	"
207.	George O. Fitzgerald	"
208.	Samuel T. Oatley	Narragansett Pier.
210.	Fred B. Tucker	"
211.	Edward T. Taylor, Jr.	Narragansett Pier.
213.	Harry E. Harvey	"
214.	Manuel Silviera	Little Compton.
215.	Frank Brown	"
217.	Judson A. Manchester	Newport.
218.	Earnest E. Streeter	Wakefield.
220.	Henry Milton Bundy	Little Compton.
223.	Myron G. Tucker	Wakefield.
225.	William M. Wyatt	Portsmouth.
227.	Charles Gross	Newport.
228.	John Taylor	Jamestown.
230.	William Allen	Newport.
231.	Antonio R. Medeiros	Middletown.
232.	Ray S. Mott	Newport.
233.	Henry A. Burgess	"
234.	William L. Weaver	"
235.	Procopios Mataronas	"
236.	George Mataronas	"
239.	Robert P. Hall	Westerly.
240.	George M. Nye	"
241.	Elvin M. Scott	"
242.	George H. Brayman	"
245.	H. E. Sisson	"
246.	Asahel B. Larkin	"
247.	John F. Maxson	"
248.	F. O. Lamphear	"
249.	Thomas T. Saunders	"
250.	Edward Andrews	Wickford.
251.	Edward Andrews, Jr.	"

License No.	Name.	Location.
253.	Comlis Demetreos Comlis.....	Newport.
254.	John Espanolia.....	"
256.	Norman McFadden.....	Little Compton.
258.	Joseph A. Maytum.....	Bristol.
259.	Isaac Meiggs.....	Block Island.
260.	E. M. Slate.....	"
261.	Fred A. Slate.....	"
262.	Harry S. Champlin.....	Narragansett Pier.
263.	Reuben McKinney.....	"
264.	Thomas W. Rhodes.....	"
265.	Joshua G. Champlin.....	"
266.	Henry C. Whaley.....	"
267.	Alvin O. Gould.....	"
269.	Elisha Hewett Champlin.....	Wakefield.
270.	Horace Tucker.....	"
271.	Charles S. Clarke.....	Jamestown.
273.	Henry C. Johnson, 2d.....	Hamilton.
274.	Arthur C. Wilbur.....	Little Compton.
275.	Joseph Marshall*.....	Jamestown.
275.	Walter Jackson.....	Providence.
276.	Frank W. Johnson.....	Hamilton.
277.	John S. Petritis.....	Jamestown,
278.	Constantine Frank.....	Narragansett Pier.
279.	Peter Goudy.....	Newport.
280.	Alfred A. Peckham.....	Tiverton.
281.	George A. Martin.....	Newport.
282.	John Mustacas.....	"
283.	Julias J. Forgeeti.....	"
284.	Ellis B. Wilbur.....	Little Compton.
285.	William F. Freeborn.....	Portsmouth.
286.	L. Wardsworth.....	Wickford.
287.	Charles W. Cowles.....	Newport.
288.	Michael Frank.....	Narragansett Pier.

*License Revoked.

License No.	Name.	Location.
290.	Joseph C. Silvia.....	Little Compton.
291.	Willard F. Borden.....	Tiverton.
292.	Clarence H. King.....	Jamestown.
293.	John A. James.....	Newport.
294.	Herbert L. Smith.....	Wakefield.
295.	Nicholas Batlis.....	Newport.
296.	Marvin Thompson.....	Portsmouth.
297.	Marcus M. Wilcox.....	Tiverton.
298.	Ferdinand D. Conning.....	Bristol.
299.	Albert H. Porter.....	Dutch Island.
300.	George C. Harris.....	Jamestown.
302.	John C. Molden.....	Middletown.
303.	John F. Connell.....	Newport.
304.	Benjamin Johanson.....	"
306.	Rudolphi Schade.....	Jamestown.
308.	Edward F. Sweet.....	Narragansett Pier.
309.	Bernard Murphy.....	Newport.
312.	P. O. Mott, Jr.....	Block Island.
313.	William P. Briggs.....	Narragansett Pier.
314.	John A. Hart.....	Newport.
316.	Joshua F. Clark.....	Narragansett Pier.
317.	Harry D. Clarke.....	"
318.	George Marshall.....	Bristol.
321.	Nicholas Petritis.....	Jamestown.
322.	William E. Smith.....	Oakland Beach.
324.	Herbert Wilcox.....	Charlestown.
325.	Howard P. Wilcox.....	"
330.	Thomas Perry George.....	Jamestown.
331.	John Townsend.....	Oakland Beach.
332.	Anthony Axiotes.....	Newport.
334.	Cleveland H. Clarke.....	Westerly.
335.	John M. Silvia.....	Newport.
336.	Joseph Williamson.....	"
337.	Joseph E. Champlin.....	Charlestown.

License No.	Name.	Location.
340.	Ebenezer Crowell	Conimicut.
342.	James Driscoll	Newport.
344.	Patrick H. Dillon	Wakefield.
346.	William Littlefield	Block Island.
348.	L. C. Luth	Newport.
349.	Charles E. Larkin	Westerly.
353.	Albert Sherman	Portsmouth.
354.	Jean Carroll	Sakonnet Point.
356.	Gordon Bliven	Newport.
357.	Walter S. H. Bliven	"
358.	Maurice Fleetwood	"
359.	George L. Payne	Block Island.
360.	Edwin W. Nash	Watch Hill.
361.	Thomas Bliven	Newport.
362.	Elisha M. Taylor	Wakefield.
364.	Manuel Ramos	Newport.
365.	Arnold James	"
366.	Annie D. Parke	Little Compton.
367.	James A. Wright	Wakefield.
369.	Daniel McKeown	Newport.
370.	James Skapinakis	Newport.
371.	Thomas Kristodolo	"
372.	Charles B. Albro	Prudence Island.
373.	William S. Albro	"
374.	Manuel S. Nones	Newport.
375.	Anastaso Salonikas	"
376.	Charles A. James	"
377.	Stephen Mitchell	"
378.	Edward L. Harvey	"
379.	C. Johnson	"
380.	John Reardon	"
381.	William H. Dickerson	Warren.
382.	John C. Dickerson	"
383.	William C. Tucker	Wakefield.

License No.	Name.	Location.
384.	George H. Sweet.....	Narragansett Pier.
385.	Howard D. Browning.....	Wakefield.
386.	Leon M. Champlin.....	Narragansett Pier.
387.	Herbert A. Nicholas.....	Warren.
388.	Christian T. Luth.....	Newport.
389.	James Collins.....	"
390.	Martin Hord.....	"
391.	Alfred J. Grows.....	"
392.	Anton Popper.....	"
393.	Clarence McClure.....	"
394.	William Alvin Bliven.....	"
395.	Percy R. Beals.....	Bristol.
396.	E. Wilfred Matterson.....	Saunderstown.
397.	Frank A. Domingo*.....	Newport.
398.	G. B. Mitchell.....	Jamestown.
399.	J. C. W. Porter.....	Narragansett Pier.
400.	Frank E. Trask.....	Warren.

*License Revoked.

BEAM TRAWLING.

Beam trawling was not carried on very extensively in Narragansett Bay in 1911. Fish were not so plentiful and about the only ground dragged over to any extent by the beam trawls was that portion of the East Passage, near Gould Island. It would seem as though beam trawling was gradually regulating itself as far as the bay is concerned. Some of this falling off is due to the extension of the oyster industry. In other localities the scarcity of the fish and the engagement of the fishermen in more profitable branches of the fishing industry have very much diminished the amount of trawling. The auto trawling outside of the bay was not particularly remunerative except in certain limited areas.

SALT WATER LINE-FISHING.

Line-fishing within Narragansett Bay was very successful this past year. The *tautog*, or black fish, around Newport, while not

especially abundant, a number of good catches were reported. In the upper part of the bay the general fishing was excellent. Many quite large *squeteague* were caught. The *hickory shad* were not quite so abundant as they were last year. The hand line-fishing for *scup* was as usual very poor, as very few of these fish reached the upper part of the bay.

FISH-TRAPS, SET IN RHODE ISLAND WATERS, AND LIST OF TRAP OWNERS.

A table giving the number and distribution of the fish-traps in Rhode Island waters for the past fourteen years is given below.

The steady increase in the total number of traps which it will be observed, continued up to and including 1910, was lacking this past year, and a slight decrease (6 traps) took place. Most of this decrease was in the Off Shore Division, where the fishermen abandoned certain sets. As will be seen on the accompanying chart (Chart III), the string of *scup* traps off Sakonnet have been extended a little farther off shore. The outmost trap was approximately ten miles southeast of Seal Rock, and about six miles south of Sakonnet Light.

In the accompanying table the following arbitrary divisions have been made for the sake of convenience:

I. *Providence River*.—South to a line joining Warwick Point and Popasquash Point.

II. *Greenwich Bay*.—The West Passage south of Providence River division and north of a line drawn east and west, touching the southern part of Hope Island.

III. *West Passage*.—The West Passage south of the Greenwich Bay division, north of a line drawn due west from Beaver Tail and west of a line connecting the south point of Prudence Island and North Point, Conanicut Island.

IV. *Mount Hope Bay*.—North of Railroad Bridge, Tiverton, and a line connecting Bristol Ferry and Mussel Shoal Light.

V. *East Passage*.—South of Providence and Mount Hope Bay divisions and north of a line from Beaver Tail to Brenton's Point.

VI. *Sakonnet River*.—The Sakonnet River south of Railroad Bridge to a line connecting Flint Point and the Breakwater, Sakonnet Point.

VII. *Off Shore*.—Traps south of above divisions and east of Point Judith, not including those off Block Island.

VIII. *Block Island*.—Traps set off this island.

IX. *Watch Hill*.—Traps set along the mainland of Rhode Island, west of Point Judith.

TABLE VI.

Table Showing Number and General Distribution of Fish-Traps Since 1898.

YEAR.	Providence River.	Greenwich Bay.	West Passage.	Mount Hope Bay.	East Passage.	Sakonnet River.	Off Shore.	Block Island.	Watch Hill.	Total.
1898.....	4	6	26	9	34	15	25	.....	.....	119
1899.....	3	10	23	11	35	15	24	.....	.....	121
1900.....	4	16	24	16	34	12	29	.....	.....	135
1901.....	7	15	24	13	52	14	26	.....	.....	151
1902.....	6	22	27	13	52	14	27	.....	.....	161
1903.....	7	21	32	13	72	16	30	.....	.....	195
1904.....	6	27	33	7	78	14	40	.....	.....	220
1905.....	6	26	33	11	82	20	56	6	.....	240
1906.....	6	35	27	11	80	20	64	6	.....	249
1907.....	7	37	30	12	87	22	70	6	.....	271
1908.....	7	38	32	12	87	22	73	.....	.....	271
1909.....	7	31	32	12	88	26	73	8	.....	277
1910.....	9	29	26	14	92	20	71	8	14	283
1911.....	10	30	20	13	93	21	66	10	14	277

1911.

LIST OF TRAPS AND OWNERS.

Block Island Traps. (See Chart I.)

Ball & Co. (3 traps).....	South of New Harbor.
Ball & Co.....	Southwest Point.
Dunn, G. P., Jr. (2 traps).....	South of New Harbor.
Dunn, G. P., Jr.....	Southwest Point.
Lewis, R. G.....	Southwest Point.
Littlefield, H. K.....	Southwest Point.
Sheffield, A. N.....	South Sandy Point.

Watch Hill Traps. (See Chart II.)

Alliston, G. E.....	Noyes Point.
Babcock Brothers.....	Watch Hill Point.
Babcock Brothers.....	Noyes Point.
Burdick Brothers (4 traps).....	Little Narragansett Bay.
Clarke, F. E.....	Squid's Ledge.
Hillyer, Burdick.....	Breakwater, Point Judith.
Larkin Brothers (2 traps).....	Squid's Ledge.
Scott, E. M.....	Watch Hill Reef.
Wilcox, E. F (2 traps).....	Green Hill Point.

Off-Shore Traps. (See Chart III.)

Anderson, C. B.....	Coggeshall's Ledge.
Anderson, C. B. (000)*.....	South Sakonnet Light.
Atlantic Trapping Company (00).....	South Sakonnet Light.
Atlantic Trapping Company.....	South Narragansett Pier.
Atlantic Trapping Company (00).....	South Seal Rock.
Brightman Fish Co. (00).....	Seal Ledge.
Brightman Fish Company.....	South Sakonnet Light.
Brightman Fish Company.....	South Cormorant Rock.
Brownell Brothers.....	South Narragansett Pier.

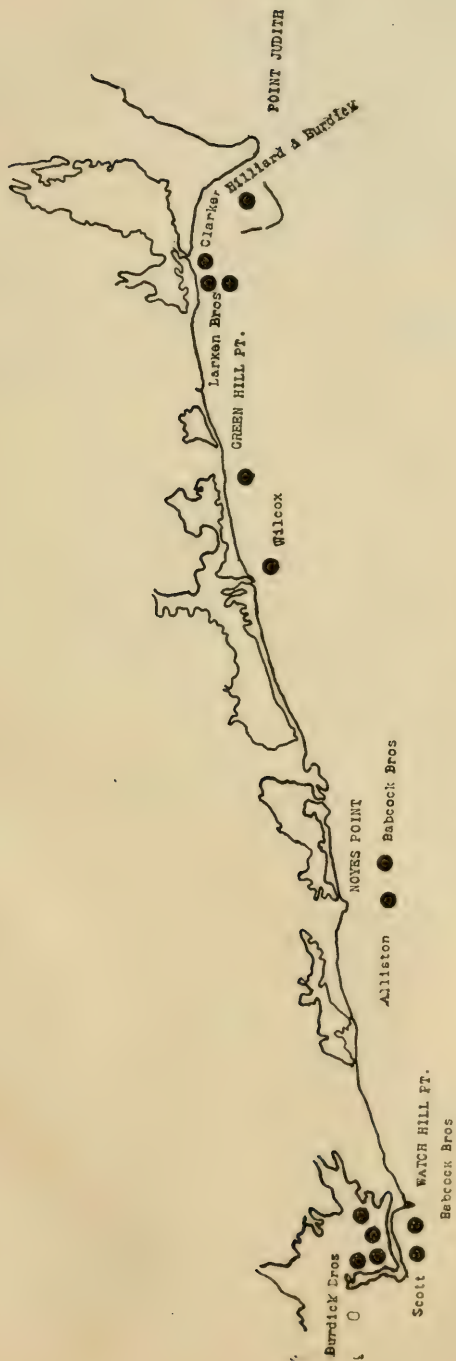
*The ciphers indicate the number of traps on one string of leaders.



BLOCK ISLAND.

Showing the location of Fish Traps for 1911.

CHART I.



WATCH HILL DIVISION.

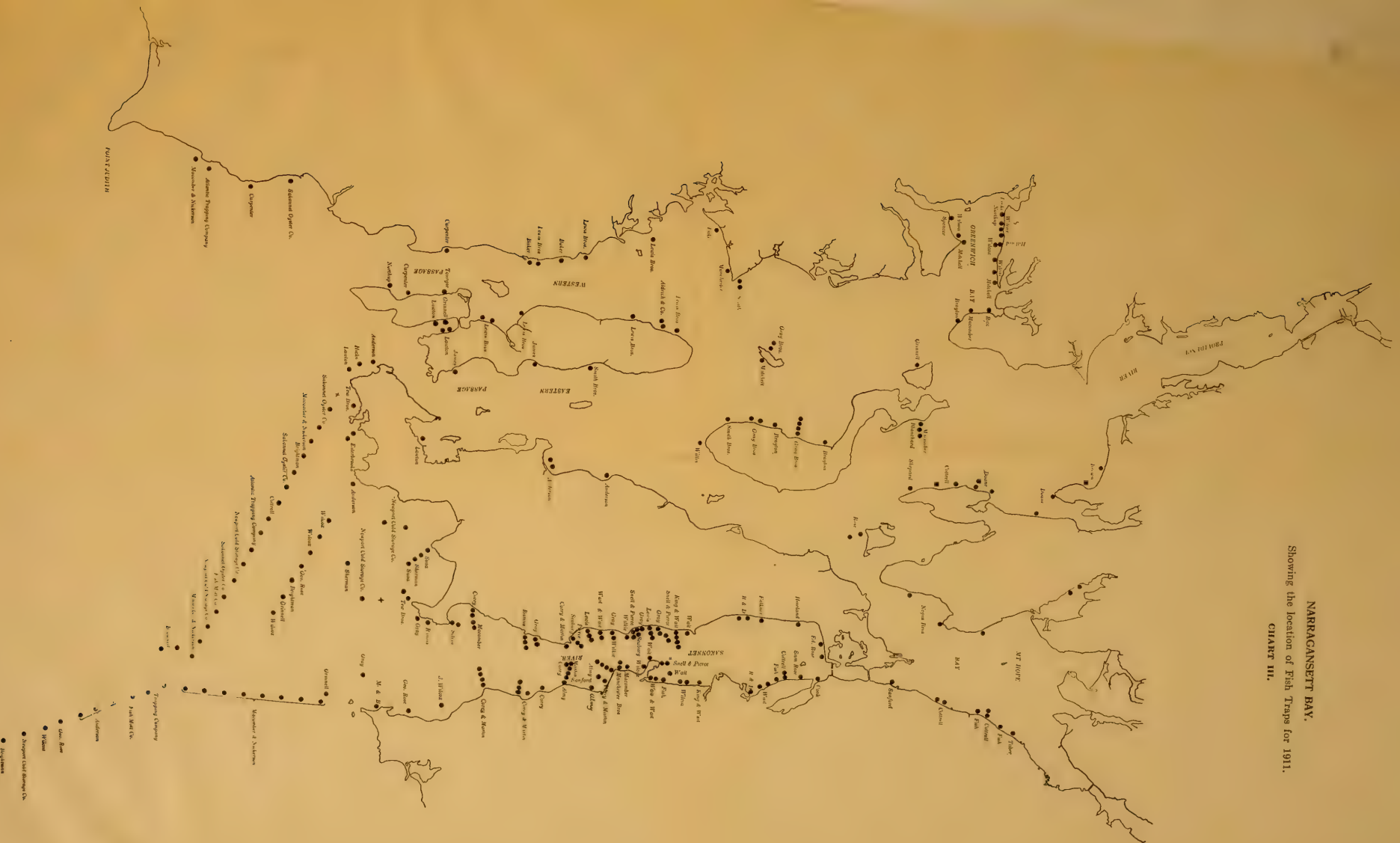
Showing the location of Fish Traps for 1911.

CHART II.

NARRAGANSETT BAY.

Showing the location of Fish Traps for 1911.

CHART III.





Brownell Bros. (00).....	Southeast Seal Rock.
Carpenter, G.....	Narragansett Pier.
Cottrell, George (00).....	South Seal Rock.
Easterbrook, C. (00).....	Price's Neck.
Fish-Mott Co.....	Southeast Seal Rock.
Fish-Mott Co.....	South Sakonnet Light.
Gray, Ben.....	East Sachuest Point.
Gray, Ben.....	West Sakonnet Light.
Grinnel, F.....	West Cormorant Rock.
Grinnel, F.....	South Cormorant Rock.
Grinnel, F.....	Sakonnet Light.
Macomber & Nickerson.....	South of Pier.
Macomber & Nickerson (00).....	Southeast Seal Rock.
Macomber & Nickerson.....	South Seal Rock.
Macomber & Nickerson (00000000).....	South Sakonnet Light.
McFaden & Bowman.....	Breakwater, Sakonnet.
Newport Cold Storage Co. (00).....	Southeast Seal Rock.
Newport Cold Storage Co.....	Southeast Seal Rock.
Newport Cold Storage Co.....	South Sakonnet Light.
Newport Cold Storage Co. (00).....	West Cormorant Rock.
Newport Cold Storage Co.....	South Cormorant Rock.
Ramus, Manuel.....	Third Beach, Newport.
Rose, George.....	South Sakonnet Light.
Rose, George.....	South Cormorant Rock.
Sakonnet River Oyster Co. (00).....	Seal Rock.
Sakonnet River Oyster Co.....	Seal Ledge.
Sakonnet River Oyster Co.....	Southeast Seal Rock.
Sherman, A.....	Easton's Point.
Susa, J. (00).....	Easton's Point.
Susa, J.....	Easton's Point.
Tew Bros.....	West Price's Neck.
Tew Bros. (00).....	West Sachuest Point.
Wilcox, Henry.....	South Cormorant Rock.
Wilcox, Henry.....	South Cormorant Rock.

Wilcox, Holder (00).....	South Cormorant Rock.
Wilcox, Holder.....	South Sakonnet Light.

Other Traps. (See Chart III.)

Aldrich & Co. (00).....	Below North Point Conanicut.
Almy, Frank.....	High Hill Point.
Almy, Frank.....	South High Hill Point.
Almy, Frank (00).....	South High Hill Point.
Anderson, C. B.....	Castle Hill.
Anderson, C. B. (00).....	Coddington Cove.
Anderson, C. B.....	North Coddington Cove.
Baker, N.....	Plum Beach.
Baker, N.....	Casey's Point.
Blanchard, Charles (00).....	Bear's Point.
Brightman, C.....	Warwick Neck.
Brightman, G.....	South Prudence Park.
Brightman, G.....	High Hill Bend.
Brown (00).....	North Rumstick Point.
Carpenter, G.....	South Ferry.
Carpenter, G.....	Austin's Hollow.
Cook, H.....	Upper East Shore, Sakonnet.
Corey, Ed. (000).....	Lower West Shore, Sakonnet.
Corey, George (00).....	South High Hill Point.
Corey, George.....	Brown's Point.
Corey & Martin.....	Brown's Point.
Corey & Martin (00).....	South High Hill Point.
Corey & Martin (000).....	South Brown's Point.
Corey & Martin (0000).....	North Church's Point.
Cottrell, S.....	West Popasquash Neck.
Cottrell, S.....	West Popasquash Neck.
Cottrell, S (00).....	Upper East Sakonnet River.
Cottrell, W. (00).....	North Tiverton.
Cottrell, W. (00).....	North Tiverton.
Doane, (3 traps).....	North Popasquash Neck.

Doane.....	Rumstick.
Doane.....	West Shore Bristol Neck
Falkner, G.....	South Portsmouth.
Fish, Clinton (00).....	North Tiverton.
Fish, Horace.....	North Sapowet Point.
Gray Brothers (00).....	West Hope Island.
Gray Brothers (00).....	South Prudence Park.
Gray Brothers (0000).....	Prudence Park.
Gray, E. (00).....	South Sandy Point, Sakonnet.
Gray, E.....	South Sandy Point, Sakonnet.
Gray, E. (00).....	South McCurry's Point.
Gray, E.....	McCurry's Point.
Grinnell, E.....	West Shore, Patience Island.
Grinnell, E.....	Mackerel Cove.
Hicks, O. G.....	South Castle Hill.
Hilliard, J.....	Buttonwoods.
Howland, J.....	Island Park.
James, Arnold.....	Taylor's Point.
James, Arnold.....	Jamestown.
King & Wait (0000).....	South McCurry's Point.
King & Wait.....	South Sapowet Point.
Lake, I.....	Sauga Point.
Lawton, F. (00).....	Mackerel Cove.
Lawton, F.....	Mackerel Cove.
Lawton, F.....	Castle Hill.
Lawton, F.....	Mackerel Cove.
Lawton, F. (00).....	Brenton's Cove.
Lewis Brothers.....	Packard's Rock.
Lewis Brothers.....	Wild Goose Point.
Lewis Brothers.....	Dutch Island Harbor.
Lewis Brothers.....	North Dutch Island Harbor.
Lewis Brothers.....	Greene's Point.
Lewis Brothers.....	Sandy Point, Conanicut Island.
Lewis Brothers.....	North Point, Conanicut Island.

Lewis, Wilson (000)	South Sandy Point, Sakonnet.
Lewis, Wilson (00)	North Sandy Point, Sakonnet.
Locke, Moses	Cedar Tree Point.
Locke, Moses	North Chepiwanoxet.
Macomber, F. A.	North High Hill Point.
Macomber, F. A.	Warwick Neck.
Macomber, F. A.	Bear Point.
Macomber, F. A.	South Wood's Castle.
Manchester Brothers (00)	High Hill Point.
Manchester, D.	Quonset Point.
Martin, C.	South High Hill Point.
Matchett, H.	Southwest Hope Island.
Mitchell, E.	Buttonwoods.
Mitchell, E.	Sally Rocks.
Negus Brothers	Mount Hope Point.
Negus Brothers	South Mount Hope Point.
Northup & Co.	Austin's Hollow.
Northup, A.	Buttonwoods.
Ramus, Manuel (000)	Wood's Castle.
Ramus, Manuel	Sachuest Point.
Rice, H. H.	Warwick Neck.
Rose, Arthur (00)	Hog Island.
Rose, George	Church's Cove.
Rose, George	North Mount Hope Point.
Rose, Ed.	South Stone Bridge.
Rose, Ed (00)	Island Park.
Rose Sam (00)	North Sapowet Point.
Rose, Sam	Upper East Shore, Sakonnet.
Rose & Davenport (00)	Portsmouth.
Rose & Davenport	North Sapowet Point.
Sanford, J.	South High Hill Point.
Seabury, Benj. (00)	Black Point.
Seabury, Benj.	South Sandy Point, Sakonnet.
Seabury, Benj.	North Sandy Point, Sakonnet.

Shephard, J.	Popasquash Point.
Shepard, J.	Warren.
Sherman, Albert.	North Black Point.
Silvia, P. (00).	Flint Point.
Smith Brothers.	East Shore, Conanicut Island.
Smith Brothers.	Southeast Prudence Island.
Smith, J. W. (00).	Quonset Point.
Snell & Pierce (00).	Fogland Point.
Snell & Pierce (00).	Black Point.
Snell & Pierce (00).	South McCurry's Point.
Spencer H.	South Greenwich Bay.
Stafford, J.	North Railroad Bridge, Tiverton.
Taber & Son.	North Tiverton.
Tourgee, P.	South Fox Hill Point.
Wait, J. L (00).	North Sapowet Point.
Wait, J. L.	North Fogland Point.
Wait, Norman (00).	North Fogland Point.
Wait & Wait (00).	North Fogland Point.
Wait & Wait (00).	South Sandy Point.
Wait, H.	McCurry's Point.
Wilkie.	High Hill Point.
Wilkie.	High Hill Point.
Wilcox, Charles.	Mouth Sakonnet River.
Wilcox, M. M.	South Fogland Point.
Wilcox, M. M.	North Fogland Point.
Wilcox, H. (5 traps).	Old Buttonwoods.
Wilcox, John.	Church's Cove, Sakonnet.
Willis, G.	Southeast Prudence Island.
Wilson, A.	South Greenwich Bay.

DEEP WATER FISHING OFF NEWPORT, 1911.

The fishing season off Newport was slightly below the average. The "runs" of fish were not large and were generally later than usual. "Trash" fish, upon which the lobstermen depend for their

bait, were scarce, and as late as April 24, halibut heads were shipped in for lobster bait. The big scup traps were set about April 28 and many were taken up near June 14. Many large blue fish were caught this season and sword fish were quite plentiful.

Scup.—The first reported catch of scup on the Atlantic Coast in 1911, consisted of about half a dozen taken off the coast of New Jersey, April 20. About a week later (April 26) two were caught in the traps off Point Judith. April 28th, four were taken at Sakonnet Point. A few were caught from this time on, but it was not until May 7 that any single catch equalled a barrel. The fish making up these early catches were mixed in size and averaged somewhat smaller than is usually the case. The run of large fish commenced near May 12 and ended June 20. The period of greatest abundance was between May 14th and June 1st. A calendar of the run of scup since 1905 is given at the end of this section. Table VII.

Mackerel.—The mackerel arrived on the Atlantic Coast later this year than usual. They were first located on April 12 off Chincoteague, Va., on which date about fifty were caught. As the catches continued light, only a few to a boat, the mackerel fleet at Newport did not set out for the Virginia grounds until April 22d. The first shipment of mackerel was received at New York on May 1st and consisted of 450 shipped from Lewis, Delaware. This is said to be the latest date that first shipment of mackerel was ever landed in New York. The first catch of mackerel in the traps off Newport was about May 6. The record shipment from Newport in 1911 was on May 27th and consisted of 25,000 fish. These fish were caught near No Mans Land, and were very large, averaging about fifty to a barrel. The mackerel season off these waters was generally considered poor and waned about August 1st.

The "*tinker*" mackerel made their appearance about July 15.

The first *butterfish* of the season was caught off Easton's Beach on May 2d. Good catches were not made, however, until May 7th.

The first *squeteague*, or weak fish, taken in the offshore traps this season was caught off Second Beach, Newport, on May 15th. On

June 15th, in the traps off Narragansett Pier, the first barrel of these fish was caught. The 21st of June was the commencement of the so-called run.

Two *striped bass*, the first of the season, were caught on April 24, near Price's Neck. On May 24, a 39-pound specimen was taken.

Sword Fish were unusually plentiful off shore and many large ones were taken. July 18 a sword fish was caught that weighed 468 pounds when dressed for shipment.

On July 15th the first *horsemackerel* was taken from the traps.

TABLE VII.

Calendar of Scup Season off Newport, 1905-1911.

	1905.	1906.	1907.	1908.	1909.	1910.	1911.
First appearance....	May 1.	April 20.	May 2.	April 23.	April 19.	April 24.	April 26.
Run commences.....	May 16.	May 1.	May 10.	April 29.	May 1.	May 8.	May 12.
Run ends.....	June 25	June 15.	June 24.	June 9.	June 14.	June 22.	June 20.
Most abundant.....	June 1 to June 18.	May 5 to June 4.	May 21 to June 10.	April 29 to June 1.	May 10 to June 7.	May 13 to June 5.	May 14 to June 1.

TABLE VIII.

Calendar of Mackerel Season off Newport, 1905-1911.

	1905.	1906.	1907.	1908.	1909.	1910.	1911.
First caught in traps.	April 28.	May 4.	May 2.	April 27.	April 17.	April 23.	May 6.
First large shipment from Newport.....	May 14.	May 14.	May 17.	May 14.	May 4.	May 16.	May 27.
Most abundant.....	June 1 to June 19.	June 4 to June 30.	June 11 to July 5.	May 25 to July 1.	May 16 to July 1.	May 16 to July 25.	May 27 to June 21.
Record day.....	.....	June 4.	July 1.	June 20.	May 24.	June 10.	May 27.
Season ends at Newport.....	June 28..	Near end of July.	Near end of July.	Near end of July.	Near mid of July.	Near end of July.	Near Aug. 1.

TABLE IX.

Appearance of Tinker Mackerel, 1905-1911.

YEAR.	First Appearance.
1905.....	June 25.
1906.....	June 4.
1907.....	June 10.
1908.....	May 27.
1909.....	June 17.
1910.....	July 1.
1911.....	July 15.

TABLE X.

Catch of Squiteague in Scup Traps off Newport, 1905-1911.

	1905.	1906.	1907.	1908.	1909.	1910.	1911.
"Stragglers" first appearance.....	June 14.	May 4.	May 21.	May 7.	May 19.	April 9.	May 15.
Commencement of "run".....	June 21.	June 10.	June 20.	June 6.	June 17.	June 20.	June 15.

TABLE XI.

First Appearance of Various Marketable Fish in Traps off Newport, 1905-1911.

	1905.	1906.	1907.	1908.	1909.	1910.	1911.
Butterfish.....	May 22.	April 16.	May 10.	April 28.	April 21.	April 22.	May 2.
Horse-mackerel.....				June 25.	June 17.	July 16.	July 15.
King Fish.....				May 8.	May 4.	May 4.	May 13.
Mackerel.....	April 28.	May 4.	May 2.	April 27.	April 17.	April 23.	May 6.
Sea bass.....			May 8.	May 5.	May 4.	May 1.	May 4.
Sea Robins.....		April 30.	May 9.	April 27.	May 1.	April 21.	April 27.
Scup.....	May 1.	April 20.	May 2.	April 23.	April 19.	April 24.	April 26.
Squid.....		May 4.	May 10.	April 27.	May 1.	April 20.	April 28.
Squiteague.....	June 14.	May 4.	May 21.	May 7.	May 19.	April 9.	May 13.
Striped Bass.....		April 31.	May 16.	April 24.	April 21.	April 20.	April 22.

The following specimens were added in 1911 to the magnificent collection of Commissioner D. B. Fearing:

Horse mackerel or tunny (*Thunnus thynnus*), caught near Block Island.

Flying gurnard (*Cephalacanthus volitans*), caught near Wickford.

Spot (*Leiostomus xanthurus*).

Wolf-fish (*Anarhichas lupus*).

Sheepshead (*Archosargus probatocephalus*), caught off Warwick, R. I., weight, 15 $\frac{1}{4}$ pounds.

A lobster naturally colored red.

A lobster naturally colored yellow.

NOTE.—This collection, which is elegantly mounted and adorns the walls of his famous library of books and manuscripts on subjects relating to fishing, is unique in the fact that an attempt has been made to get large specimens of the small fish and small specimens of the large fish. The species represented were all caught in Rhode Island waters. The list complete to January 1, 1912, is as follows:

*An alphabetical list of the mounted specimens of fish caught in Rhode Island waters, now in the library of Hon. D. B. Fearing, A. M.

Alewife,	Ling,	Spanish-mackerel,
Amber Jack,	Lobster (natural red),	Spot,
Angler Fish,	Lobster (natural yellow),	Spotted Cero,
Black Bass,	Mackerel,	Striped Bass,
Bluefish,	Menhaden,	Sturgeon,
Butterfish,	Ocean Bonito,	Swordfish,
Catfish,	Orange Filefish,	Tarpon,
Chicken Halibut,	Pipe-fish,	Tautog,
Chogset (2 lb. 6 oz.),	Pollock,	Tilefish,
Chub Mackerel,	Rabbit Fish,	Tomecod,
Cod,	Remora,	Trigger-fish,
Conger Eel,	Sail-fish (8 ft.),	Trout (female),
Crab Eater,	Salmon,	Trout (male),
Dogfish,	Scabbard-fish,	Tunny,
Eel,	Sculpin,	Toadfish,
Flounder,	Scup (6 lbs.),	Violet Ray,
Flying Gurnard,	Sea Bass,	Weakfish,
Haddock,	Sea Robin,	White Perch,
Hake,	Shad,	Window-pane Flounder,
Hardtail,	Sheepshead,	Winter Flounder,
Herring,	Smelt,	Wolf-fish,
Kingfish (Menticirrhus),	Skate,	Yellow Perch.

*Any person who may catch, in Rhode Island waters, any species of fish not included in this list is respectfully requested to notify Hon. D. B. Fearing, A. M., Newport, R. I.

CHAPTER III.

ENFORCEMENT OF STATE LAWS.

While the lack of appropriation prevented as aggressive an enforcement of our fisheries laws as your Commission desired, still the chaotic state of affairs which might have resulted had there been no enforcement of the State laws, was prevented, and in so far as was possible, the laws were strictly enforced.

The following prosecutions were made and fines imposed and paid under the lobster law (the names of those fined are omitted):

Newport, April 17, fishing without license	\$20 00
Narragansett Pier, May 17, fishing without license	20 00
Newport, May 6, short lobsters	30 00
Jamestown, June 16, 18 short lobsters	90 00
Fox Island, July 6, 10 short lobsters	50 00
Saunderstown, August 5, 9 short lobsters and 1 egg lobster .	50 00
Newport, August 16, 5 short lobsters	25 00
	\$305 00

Your Commission is very much pleased with the recent decision of the supreme court of Rhode Island in upholding the constitutionality of the lobster license law. It is almost needless to point out the very great assistance which the license system renders in the enforcement of the lobster laws. It is sincerely hoped that this decision will effectually silence that faction of our fishermen—fortunately very small—which desire no fisheries laws, but are willing that our splendid fisheries shall be wantonly wasted by short-sighted and greedy methods of fishing.

For the benefit of those who do not wish to read the entire text of the decision, we give the following brief summary. The full text of the decision is given in Appendix A to the report.

SUMMARY OF SUPREME COURT DECISION ON LOBSTER LICENSE LAW.

It was contended that Sections 1 and 2 of Chapter 437 of the Public Laws of 1909 were unconstitutional, because:

I. They denied licenses to aliens and citizens of the State of less than one years' residence; and, furthermore, gave to the Commissioners of Inland Fisheries the arbitrary right to refuse licenses to citizens of the State. By so doing they impaired the right of the people of the State to "enjoy and freely exercise (all) the rights of fishery . . . to which they have been hitherto entitled under the charter and usages of the state" as provided in Section 17, Article I, Constitution of Rhode Island; deprived them of "liberty and property" in some other manner than by "judgment of (their) peers or the law of the land" as provided in Section 10, Article I, Constitution of Rhode Island; and was also in conflict with Section 1, Article 14 of Amendments to the Constitution of the United States, because citizens of the United States were deprived of rights "without due process of law."

II. That the above sections of Chapter 437 were further unconstitutional in the fact that they interfered with the rights of citizens to employ any assistants they saw fit in the lobster fishery, and also abridged the privileges of citizens of other states and of the United States by preventing them from doing manual labor as servants in connection with the lobster fisheries. In these particulars the sections referred to were in conflict with Section 2, Article 4, Constitution of the United States and Section 1, Article 14 of Amendments to the Constitution of the United States.

The decision of the supreme court may be briefly summed up in the words of the court, speaking through Chief Justice Dubois. After full consideration of the constitutional questions and numerous citations of authority, he says:

"We are therefore of the opinion that the constitutional questions aforesaid must be severally answered in the negative. We do not find that any of the requirements of the Constitution of the United

States or of the Constitution of this State, referred to in the questions certified to us, have been violated by the provisions of Pub. Laws, cap. 437, secs. 1 and 2 (passed May 7, 1909) . . . We are of the opinion that the enactment of the statute in question was a proper exercise of the police powers by the legislature of the State, in a matter concerning only the people of the State, and that it was entirely unnecessary for the legislature to consider what effect the statute under consideration would have upon aliens, or even upon the citizens of other states, because it merely involved the conservation of one species of shellfish in the public waters of the State, a purely local natural resource, and that the legislature has full discretion to prescribe the modes and methods to be followed in the accomplishment of such conservation."

He further stated that "*We are unable to perceive that the rights of any person have been infringed. On the contrary, it seems that the greatest good of the greatest number will be advanced by the legislation complained of.*"

CHANGES MADE IN THE FISHERIES LAWS.

The following changes were made in our fisheries laws at the January session, 1911:

The "closed season" upon black bass was extended, making it illegal to catch or take them between January 1st and July 1st.

The legal length of black bass was made ten inches, instead of eight, as under the old law.

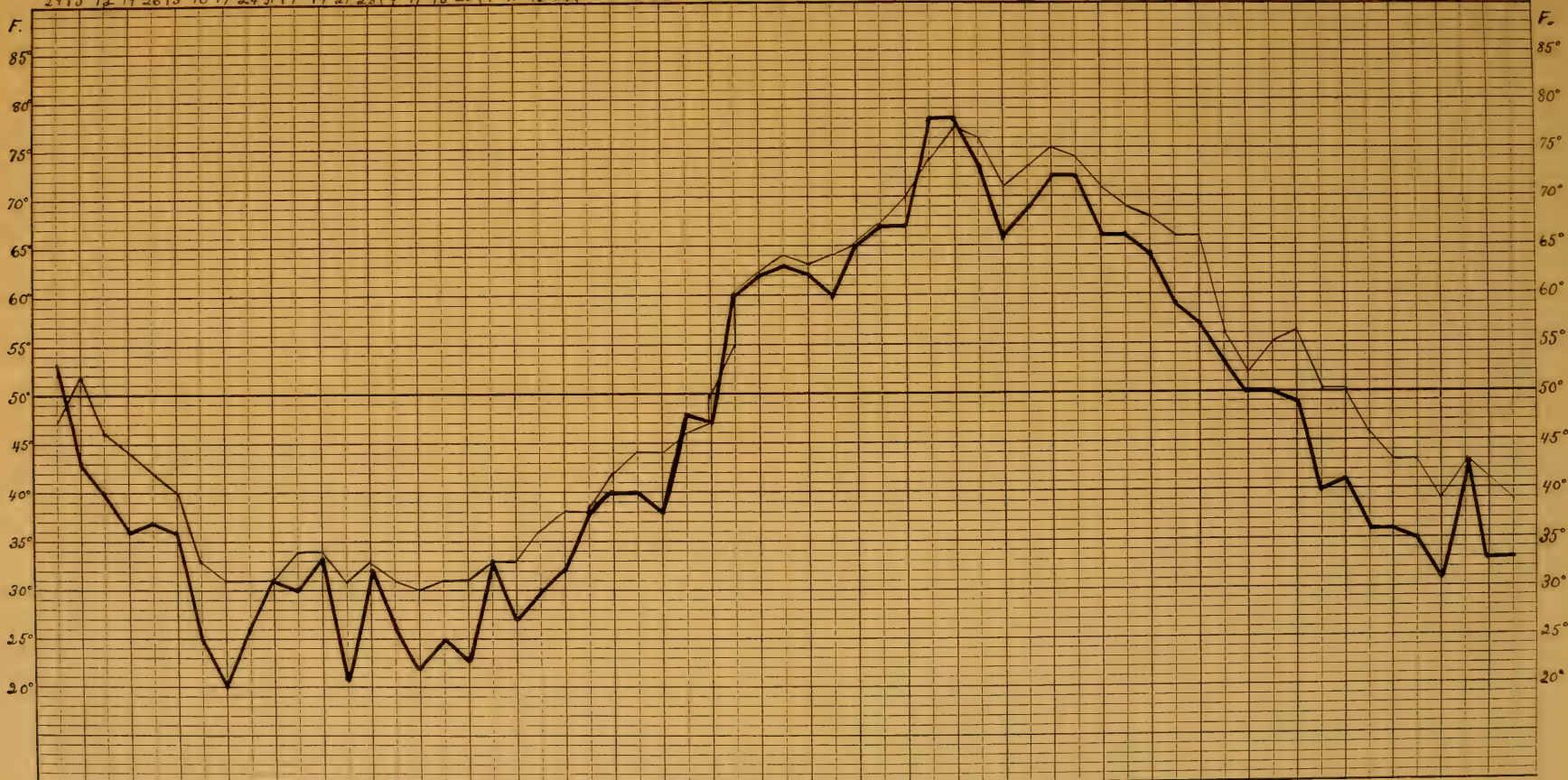
Licensed lobstermen, who were incapacitated by any reason from attending their lobster gear, were permitted to employ another person, if a citizen of the United States, to attend their gear; provided that the person so employed wore the license badge of his employer while attending said gear.

The Commissioners of Inland Fisheries were empowered to grant a permit to licensed lobstermen to set pots on a trawl in those localities that are unsuitable for separately bouying the same.

- 1910 -

- 1911 -

OCT 29 15 NOV 12 19 26 13 DEC 10 17 24 31 17 JAN 14 21 28 4 FEB 11 18 25 4 MARCH 11 18 25 1 APRIL 8 15 22 29 16 MAY 13 20 27 3 JUNE 10 17 24 1 JULY 8 15 22 29 5 AUG 12 19 26 2 SEPT 9 16 23 30 7 OCT 14 21 28 4 NOV 11 18 25 2 DEC 9 16 23



Weekly Temperature Averages of the Air and the Sea Water at the Wickford Laboratory from Oct. 26, 1910 to Dec. 23, 1911.

Light line ——— represents the sea water temperatures.

Heavy line ——— represents the air temperatures.

St
ce
ca
oj
e:
n
e
s
c
c
l
l
:

ties that are unsuitable for separately bouying the same.

CHAPTER IV.

THE CONTINUED EXAMINATION OF THE PHYSICAL AND BIOLOGICAL CONDITIONS OF NARRAGANSETT BAY.

While the physical and biological investigations of the bay were continued to a certain extent this year, only a small portion of time could be expended upon it for reasons given above.

The physical conditions (temperature, weather, etc.) were more favorable to the fishing industries this year than in 1910. A chart of the weekly averages of water and air temperatures at the Wickford Hatchery, between November, 1910, and January 1, 1911, are given here, and compare quite favorably with previous years. The water temperature was somewhat higher than in 1910, especially for the months of November and December.

The biological conditions worthy of note, were as follows:

The absence of such great schools of small fish as were seen in other years, especially 1910.

A quite large and general set of oysters.

The occurrence of an extensive set of soft shell clams on almost all shores of the bay. This was unfortunately followed by a tremendous mortality, leaving in many localities windrows of the tiny shells on the beaches. At the commencement of this year, 1912, it is quite uncertain if enough have survived, except in a few localities, to stock the shores even fairly well.

The scallop set near Wickford was greater than for a number of years. However, in the fall of the year at every low tide, number of gulls could be seen feeding upon them. At the commencement of the cold weather and ice a large part of the remaining scallops have worked out to deeper water and are consequently safe, but it is certain that a large number were destroyed by the gulls.

CHAPTER V.

THE DISSEMINATION OF ACCURATE INFORMATION CONCERNING THE AQUATIC RESOURCES OF THE STATE, FOR THE PURPOSE OF ENLISTING THE INTEREST AND SYMPATHY OF THE PUBLIC IN THE CONSERVATION AND DEVELOPMENT OF THESE RESOURCES.

The work of your Commission in the reprinting and distribution of the various instructive papers which occur in its annual reports has continued to be quite popular. Numerous requests have been received, both from this country and abroad, for literature in regard to the clam, lobster and general fisheries subjects. The supply of many of the reprints has become exhausted, but it is hoped later on to publish other articles which will not only replace the exhausted ones, but will also bring the information up to date.

The exhibit of Sea Farming, which your Commission has given for a number of years at the Fair Grounds of the Washington County Agricultural Society, attracted this year as large crowds as any other exhibition on the grounds, and your Commission has been highly complimented upon it.

At the Wickford Experiment Station, in addition to the entertainment of many other visitors, your Commission, through its superintendent, has extended the courtesies of the station to high school classes in biology and natural history societies.

CHAPTER VI.

THE CO-OPERATION WITH OTHER FISHERIES AUTHORITIES.

Your Commission has been in correspondence with every State Fish Commission in the country and has also been in communication with the fisheries authorities of other countries. The most recent letter was a request from the Northumberland Fisheries Committee of Great Britain for thirty copies of the pamphlet published last year descriptive of our lobster rearing apparatus.

The annual meeting of the American Fisheries Society which was held in St. Louis was attended by three members of your Commission. One member of the Commission was re-elected to an important office and another was appointed on the executive committee.

Your Commission wishes to acknowledge among many other courtesies the receipts of 20,000 salmon eggs from the United States Bureau of Fisheries.

CHAPTER VII.

THE PROPAGATION OF LOBSTERS AT THE WICKFORD
EXPERIMENT STATION.

The lobster rearing at Wickford in 1911 was very successful in view of the small number of egg lobsters made use of and the limited number of assistants employed. The season opened on May 21 and closed August 21. During this time the plant was never taxed to its full capacity. The number of lobsters reared to the bottom stages was 291,042. About 600 egg lobsters were made use of. The young lobsters were liberated at the following places: East Shore Conanicut Island, West Shore Conanicut Island, Mill Cove (Wickford), Poplar Point, Gould Island, Hope Island, Fox Island, Sakonnet River and Block Island.

TABLE XII.

Total Number of Fourth and Fifth Stage Lobsters Reared Each Year Since 1900.

YEAR.	IV.	V.
1900.....	3,425	.....
1901.....	8,974	.....
1902.....	27,300	.....
1903.....	13,500	.....
1904.....	50,597	.....
1905.....	103,572	.....
1906.....	189,384	24,800
1907.....	294,896	4,900
1908.....	322,672	5,481
1909.....	178,542	.....
1910.....	511,274	28,372
1911.....	*291,042	.....
Total.....	1,995,178	63,553

*The entire number of lobsters liberated in 1911 were in the latter part of the fourth stage and beyond.

During the winter and early spring an addition of several cars was made to our lobster rearing plant, which now consists of forty cars. It is confidently expected that this addition will enable us to very nearly approach the million mark in our lobster rearing output.

Various experiments were conducted this year in rearing lobsters beyond the fifth and sixth stages. Some success was obtained, especially in feeding car contrivances. It is hoped to give a fuller report on this subject another year.

The "green" egg lobsters carried through the winter came through with varying success. In certain specially devised cars as high as 98 per cent. were brought through in good condition. A feed car put in at Block Island in the fall of 1911, while not given a thorough test, held a number of "green" egg lobsters for about one month with practically no loss.

CHAPTER VIII.

THE PROPAGATION OF MARINE FISHES.

In view of our financial straits, the winter flounder was the only fish propagated in 1911. A few minor experiments were conducted in retaining and feeding certain young fishes, but no noteworthy results were obtained.

THE WINTER FLOUNDER.

As was anticipated in last year's report, the propagation of this species was carried out on a large scale in 1911. While we did not accomplish all that was desired, still some headway has been made in inexpensive methods of incubating the eggs in large quantities. Over one hundred million eggs were hatched, with a result of about eighty per cent. Of this eighty million a large number were reared through the transition period. It is hoped another year to greatly improve and extend this department of work.

In obtaining the eggs, artificial fertilization has been abandoned and the more natural Norwegian method of allowing the fish to spawn naturally in cars has been adopted. This latter method gives much the best results, sometimes yielding over 98 per cent. of good eggs, while 80 per cent. is good average results from artificial fertilization.

APPENDIX A.

STATE *vs.* CONSTANTINE KOFINES et al.

JULY 7, 1911.

PRESENT: Dubois, C. J., Blodgett, Johnson, Parkhurst, and Sweetland, JJ.

CRIMINAL COMPLAINT. Heard on constitutional questions certified to the Supreme Court.

DUBOIS, C. J. The above entitled cases are complaints brought before the District Court of the First Judicial District for violations of the provisions of Pub. Laws, cap. 437, § 1, passed May 7, 1909, and severally charged that the defendant, therein named, at a certain time therein specified, and at a certain place within the territorial waters of the state therein designated, did catch and take a certain lobster, and also that he did place, set, keep, maintain, supervise, lift, raise, draw, and cause to be placed, set, kept, maintained, supervised, lifted, raised and drawn, in and from said place in said waters, a certain pot and other contrivance designed and adapted for the catching and taking of lobsters.

These cases have been certified from the district court aforesaid to this court, in compliance with the provisions of Gen. Laws, 1909, cap. 298, § 1, for the hearing and determination of certain questions as to the constitutionality of sections 1 and 2 of said cap. 437. Said sections read as follows:

"SECTION 1. No person, either as principal, agent, or servant, shall, at any time, catch or take any lobster from any of the waters in the jurisdiction of this state, or place, set, keep, maintain, supervise, lift, raise, or draw in or from any of said waters, or cause to be placed, set, kept, maintained, supervised, lifted, raised, or drawn in

or from any of said waters, any pot or other contrivance designed or adapted for the catching or taking of lobsters, unless licensed so to do as hereinafter provided. Every person who shall violate any of the provisions of this section shall be fined twenty dollars or be imprisoned not more than thirty days, or both, for each such offence."

"SEC. 2. The commissioners of inland fisheries may grant or refuse to grant licenses to catch and take lobsters from the waters within the jurisdiction of this state (in the manner, at the times, and subject to the regulations provided in this act) to such citizens of this state as have resided in this state for at least one year next preceding the granting of such license as they may think proper. Whenever any such license shall be granted, the same shall be granted to expire on the 15th day of November next succeeding the granting of the same, unless sooner revoked as hereinafter provided, and each person to whom such license shall be granted shall, for each license, pay to said commissioners the sum of five dollars for the use of the state. Said commissioners, in their annual report to the general assembly, shall state the number of licenses granted, with the names of the persons licensed and the amount of money received therefor. Said commissioners shall issue to each person licensed as aforesaid a certificate stating the name of the person to whom such license has been granted and the date of expiration of such license, and shall also issue to each person so licensed a metal badge in such form and bearing such inscription as said commissioners shall determine. If any person licensed as aforesaid shall, at any time, be adjudged guilty of any violation of any of the provisions of this act, after full hearing by said commissioners or a majority of them, the said commissioners or a majority of them shall revoke the license issued to such person, and such person shall thereupon cease to have any authority thereunder."

The constitutional questions are raised upon the record in the several cases by defendant's motion to dismiss, by the defendant's demurrers to the complaint, and by complainant's demurrers to the defendant's pleas.

In the case of Kofines and that of Saderas, the questions are brought upon the record by motions to dismiss the complaints, the motions being identical.

In the case of Crestodolas the questions are brought upon the record by demurrer to the complaint.

In the case of Raftak and that of Deamotares, the questions are brought upon the record by motions to dismiss filed by the respondents after the filing, by the complainant, of demurrers to pleas. The motions to dismiss are identical.

The pleas filed in the case of Raftak set forth:

First. That the respondent, at the time mentioned in the complaint, was and for a long time (but less than one year) had been a citizen of the State of Rhode Island.

Second. That the respondent, at the time mentioned in the complaint, was a citizen of the United States and of the State of New York and was, and for a long time had been, a resident of the City of Newport, in the State of Rhode Island.

Third. That the acts with which he stands charged in the complaint were performed by him in the course of his employment as the servant or agent of Angelo Maniotis who, at the time mentioned in the complaint, was duly licensed under the provisions of said section 2 of chapter 437, of the Public Laws.

The pleas filed in the case of Deamotares set forth:

First. That the respondent, at the time mentioned in the complaint, was and for more than a year had been a resident in and a domiciled inhabitant of the City of Newport; and that, having been born in the Kingdom of Greece, he had duly declared his intention to become a citizen of the United States before the Superior Court of the State of Rhode Island, in said Newport, on or about the 27th day of February, A. D. 1908, in accordance with the provisions of the naturalization laws of the United States, but that he had not then been duly naturalized.

Second. That the acts with which he stands charged in the complaint were performed by him in the course of his employment as

the servant and agent of Diomatares Diomatares, who, at the time mentioned in the complaint, was duly licensed under the provisions of said section 2 of chapter 437 of the Public Laws.

It may be observed that the record does not specifically disclose the political status of Kofines, Saderas, or Crestodolas, *i. e.*, whether aliens or citizens of Rhode Island, or citizens of other states of the Union; that the pleas filed by Raftak disclose the inconsistent claims that he is a citizen of Rhode Island who has not resided in this state a full year and that he is a citizen of the State of New York and that the pleas filed by Deamotares disclose that he is an alien.

It will be observed that it does not appear in the record of any of the cases that any of the respondents have applied for and been refused licenses under section 2 of chapter 437.

The questions brought upon the record and raised in each of the cases are identical and are as follows, viz.:

(1) Are said sections 1 and 2 of said chapter 437 in conflict with the provisions of section 17, Article I, of the Constitution of Rhode Island, which is as follows, viz.:

"The people shall continue to enjoy and freely exercise all the rights of fishery, and the privileges of the shore, to which they have been heretofore entitled under the charter and usages of this state. But no new right is intended to be granted, nor any existing right impaired, by this declaration," in that the provisions of said sections 1 and 2, chapter 437, grant to the Commissioners of Inland Fisheries the arbitrary right to refuse licenses under said chapter to citizens of the State and thereby impair the enjoyment and free exercise of the rights of fishery to which the people of the State are entitled under said section of the constitution?

(2) Are said sections 1 and 2 of said chapter 437, in conflict with the provisions of Section 10, Article 1, of the Constitution of Rhode Island, which is as follows, viz.: ". ; nor shall he be deprived of life, liberty, or property, unless by the judgment of his peers, or the law of the land," in that the provisions of said sections 1 and 2, chapter 437, grant to the said Commissioners of Inland Fisheries the

arbitrary right to refuse licenses under said chapter to citizens of the state and thereby deprive citizens of liberty and property, contrary to the provisions of said section of the constitution?

(3) Are said sections 1 and 2 of said chapter 437 in conflict with the provisions of that portion of section 1, Article 14, of the amendments to the Constitution of the United States, which is as follows, viz.:

“ nor shall any state deprive any person of life, liberty, or property, without due process of law ” in that the provisions of said sections 1 and 2, chapter 437, grant to the said Commissioners of Inland Fisheries the arbitrary right to refuse licenses under said chapter to citizens of the State of Rhode Island and thereby deprive citizens of liberty and property, contrary to the said provisions of said section of the amendments to the Constitution of the United States?

(4) Are said sections 1 and 2 of said chapter 437 in conflict with the provisions of Section 17, Article 1, of the Constitution of Rhode Island (*supra*) in that the provisions of said sections 1 and 2 of chapter 437 deprive such citizens of the state as have resided therein for less than one year of the enjoyment and free exercise of the rights of fishery to which they are entitled under the provisions of said section of the constitution?

(5) Are said sections 1 and 2 of said chapter 437 in conflict with the provisions of Section 10 of Article 1 of the Constitution of Rhode Island (*supra*) in that the provisions of said sections 1 and 2 of chapter 437 deprive such citizens of the state as have resided therein for less than one year of liberty and property contrary to the provisions of said section of the constitution?

(6) Are said sections 1 and 2 of said chapter 437 in conflict with the said provisions of Section 1 of Article 14 of Amendments to the Constitution of the United States (*supra*) in that the provisions of said sections 1 and 2 of chapter 437 deprive such citizens of the State of Rhode Island as have resided therein for less than one year of liberty and property contrary to the provisions of said section of the amendments to the Constitution of the United States?

(7) Are said sections 1 and 2 of said chapter 437 in conflict with the provisions of Section 17, Article 1, of the Constitution of Rhode Island (*supra*) in that the provisions of said sections 1 and 2 of chapter 437 deprive aliens, who have fixed their domicile within the state and have resided therein for more than one year, of the enjoyment and free exercise of the rights of fishery to which they are entitled under the provisions of said section of the constitution?

(8) Are said sections 1 and 2 of said chapter 437 in conflict with the provisions of Section 10, Article 1, of the Constitution of Rhode Island (*supra*) in that the provisions of said sections 1 and 2 of said chapter 437 deprive aliens, who have fixed their domicile within the state and have resided therein for more than one year, of liberty and property, contrary to the provisions of said section of the constitution?

(9) Are said sections 1 and 2 of said chapter 437 in conflict with the said provisions of Section 1 of Article 14 of amendments to the Constitution of the United States (*supra*) in that the provisions of said sections 1 and 2 of said chapter 437 deprive aliens, who have fixed their domicile within the State of Rhode Island and have resided therein for more than one year, of liberty and property, contrary to the provisions of said section of the amendments to the Constitution of the United States?

(10) Are said sections 1 and 2 of said chapter 437 in conflict with the provisions of Section 17, Article 1, of the Constitution of Rhode Island (*supra*) in that the provisions of said sections 1 and 2 of chapter 437 interfere with the rights of citizens to engage in the lobster fisheries in the waters of this state by employing therein such suitable servants and agents as they see fit, contrary to the provisions of said section of the constitution?

(11) Are said sections 1 and 2 of said chapter 437 in conflict with the provisions of Section 2, Article 4, of the Constitution of the United States, which is as follows, viz.:

“The citizens of each state shall be entitled to all privileges and immunities of citizens of the several states,” in that the provisions of

said sections 1 and 2, chapter 437, interfere with the privileges and immunities of citizens of other states by prohibiting them from doing manual labor as servants in connection with the lobster fisheries, contrary to the provisions of said section of the constitution?

(12) Are said sections 1 and 2, chapter 437, in conflict with the provisions of that portion of Section 1, Article 14, of the amendments to the Constitution of the United States, which is as follows, viz.:

“ No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States;”, in that the provisions of said sections 1 and 2, chapter 437, abridge the privileges and immunities of citizens of the United States by prohibiting them from doing manual labor as servants in connection with the lobster fisheries, contrary to the said provisions of said section of the amendments to the Constitution of the United States?

We approach this subject mindful of the presumption of constitutionality in favor of the act in question.

The presumption of innocence in this particular obtains and “The rule generally laid down is, that statutes should be sustained unless their unconstitutionality is clear beyond a reasonable doubt. A reasonable doubt is to be resolved in favor of the legislative action, and the act sustained. Cooley on Constitutional Limitations, p. 252, and cases cited. ‘Before an act is declared to be unconstitutional it should clearly appear that it cannot be supported by any reasonable intendment or allowable presumption.’ *People v. Supervisors of Orange*, 17 N. Y. 235, 241. ‘All intendments favor constitutionality,’ *Crowley v. State of Oregon*, 11 Oregon, 512. ‘Courts will approach the question with great caution, examine it in every possible aspect, and ponder upon it as long as deliberation and patient attention can throw any new light on the subject, and never declare a statute void unless the nullity and invalidity of the act are placed, in their judgment, beyond a reasonable doubt.’ *Wellington et al., Petitioners*, 16 Pick. 87, 95, per Shaw, C. J. ‘It is but a decent respect due to the wisdom, the integrity, and the patriotism of the legislative body by which any law is passed,’ says Justice Washington, ‘to presume in

favor of its validity, until its violation of the Constitution is proved beyond all reasonable doubt. *Ogden v. Saunders*, 12 Wheat. 213, 270.' " Durfee, C. J., in *State v. The District of Narragansett*, 16 R. I. 424, 440.

Therefore it is incumbent upon the respondents to satisfy this court beyond all reasonable doubt that the act in question is unconstitutional in the particulars complained of.

Another consideration of great importance is the necessity of ascertaining whether the act in question comes within the police power of the state. Life, liberty and the pursuit of happiness are held to be among the inalienable rights with which all men are endowed by their Creator, and that to secure these rights, governments are instituted among men. It is therefore evident that the object of society is to live, increase, and flourish. It is therefore interested in the preservation of itself and of its members. "Self-preservation has been termed the first law of nature. It is of the most ancient origin: It antedates all constitutions and statutes made by man. It is the law under which we live, move, and have our being: it is a law governing all persons, natural and artificial. High and low, rich and poor, wise and foolish, old and young, are subject to its inexorable sway. Obedience to it is rewarded, while disobedience to it is inevitably punished. Out of its observance arises the doctrine of the survival of the fittest. It is an attribute of all corporations, from the State itself down to the least of its creatures. Upon it depends the police power of the State, which, in its broadest acceptance, means the general power of a government to preserve and promote public welfare by prohibiting all things hurtful to the comfort, safety, and welfare of society, and by establishing such rules as may be conducive of public benefit." *Ponte v. Marconi*, 27 R. I. 6.

"Frequently when questions of conflict between national and State authority are made, and also when it is claimed that government has exceeded its just powers in dealing with the property and controlling the actions of individuals, it becomes necessary to consider the extent and pass upon the proper bounds of another State power,

which, like that of taxation, pervades every department of business and reaches to every interest and every subject of profit or enjoyment. We refer to what is known as the police power.

“The police of a state, in a comprehensive sense, embraces its whole system of internal regulation, by which the State seeks not only to preserve the public order and to prevent offences against the State, but also establish for the intercourse of citizens with citizens those rules of good manners and good neighborhood which are calculated to prevent a conflict of rights, and to insure to each the uninterrupted enjoyment of his own so far as is reasonably consistent with a like enjoyment of rights by others.” . . .

“No definition of the powers can be more complete and satisfactory than some which have been given by eminent jurists in deciding cases which have arisen from its exercise, and which have been so often approved and adopted, that to present them in any other than the language of the decisions would be unwise, if not inexcusable. Says Chief Justice Shaw, ‘We think it is a settled principle, growing out of the nature of well-ordered civil society, that every holder of property, however absolute and unqualified may be his title, holds it under the implied liability that his use of it shall not be injurious to the equal enjoyment of others having an equal right to the enjoyment of their property, nor injurious to the rights of the community. All property in this Commonwealth is . . . held subject to those general regulations which are necessary to the common good and general welfare. Rights of property, like all other social and conventional rights, are subject to such reasonable limitations in their enjoyment as shall prevent them from being injurious, and to such reasonable restraints and regulations established by law as the legislature, under the governing and controlling power vested in them by the constitution, may think necessary and expedient. This is very different from the right of eminent domain,—the right of a government to take and appropriate private property whenever the public exigency requires it, which can be done only on condition of providing a reasonable compensation therefor. The power we

allude to is rather the police power; the power vested in the legislature by the constitution to make, ordain, and establish all manner of wholesome and reasonable laws, statutes, and ordinances, either with penalties or without, not repugnant to the constitution, as they shall judge to be for the good and welfare of the Commonwealth, and of the subjects of the same. It is much easier to perceive and realize the existence and sources of this power than to mark its boundaries, or prescribe limits to its exercise.'

" 'This police power of the State,' says another eminent judge, 'extends to the protection of the lives, limbs, health, comfort, and quiet of all persons, and the protection of all property within the State. According to the maxim, *Sic utere tuo ut alienum non laedas*, which being of universal application, it must, of course, be within the range of legislative action to define the mode and manner in which every one may so use his own as not to injure others.' And again: (By this) 'general police power of the State, persons and property are are subjected to all kinds of restraints and burdens, in order to secure the general comfort, health, and prosperity of the State; of the perfect in the legislature to do which, no question ever was, or, upon acknowledged general principles, ever can be made, so far as natural persons are concerned.' And neither the power itself, nor the discretion to exercise it as need may require, can be bargained away by the State.

"In the American constitutional system, the power to establish the ordinary regulations of police has been left with the individual States, and it cannot be taken from them, either wholly or in part, and exercised under legislation of Congress. Neither can the national government, through any of its departments or officers, assume any supervision of the police regulations of the States. All that the federal authority can do is to see that the States do not, under cover of this power, invade the sphere of national sovereignty, obstruct or impede the exercise of any authority which the Constitution has confided to the nation, or deprive any citizen of rights guaranteed by the federal Constitution." Cooley, Const. Lim. 7th Ed. p. 829, *et seq.*

“There is also a common assent that the legislature has the right of control in all matters affecting public safety, health, and welfare, on the ground that these are within the indefinable but unquestioned purview of what is known as the police power. It is indefinable because none can foresee the everchanging conditions which may call for its exercise; and it is unquestioned, because it is a necessary function of government to provide for the safety and welfare of the people. Private rights are often involved in its exercise, but a law is not on that account rendered invalid or unconstitutional. The first inquiry is whether the subject of the law is within the power; for, if it is, the legislature has jurisdiction to enact it and its terms are subject to a reasonable legislative discretion.” *Opinion to the Governor*, 24 R. I. 603, 605.

As was said by *Tillinghast v. Dalton*, 22 R. I. 77-86, in commenting upon the definition of “liberty” as given in *People v. Gillson*, 109 N. Y. 389: “this inalienable right is trespassed upon and impaired whenever the legislature prohibits a man from carrying on his business in his own way, provided always, of course, that the business and the mode of carrying it on are not injurious to the public, and provided, also, that it is not a business which is affected with a public use or interest.”

Now the subject matter of cap. 437, the act in question, relates not merely to a business affected with a public use and interest, but to the public use and interest itself. The act purports to be in substitution of an act entitled “An act for the better protection of the lobster fisheries.” By this it means the lobster fisheries of the people of the state. One of the fisheries embraced in the great franchise originally granted to the people by the king in the charter and afterwards perpetuated to them by the constitution. The words “people of the state” have received the following judicial construction: “The Constitution in its preamble starts out, ‘We, the people of the State,’ etc. In article 1, section 2, it is declared that all governments are instituted for the protection, safety and happiness of the people. In the same article, section 6, it is further declared that the right of

the people to be secure in their persons, papers and possessions, against unreasonable searches and seizures, shall not be violated. And again in section 17, 'The people shall continue to enjoy and freely exercise all the rights of fishery, and the privileges of the shore, to which they have been heretofore entitled under the charter and usages of the State,' etc. These illustrations, and others might be given, show that the term 'people,' as used in the constitution, is broad and comprehensive, comprising in most instances all the inhabitants of the State. Article 2 as amended by article 7, however, defines the qualifications necessary for electors; and, inasmuch as the Constitution provides no mode for obtaining the consent of the people except by the expression of it through the votes of the electors, we think that the consent of the people mentioned in article 4, section 13, means the consent of the electors manifested by the majority of their votes. We find nothing to warrant its restriction to such of the electors as are taxpayers, and we are of the opinion, therefore, that the word 'people,' in the section under consideration, is to be construed to include registry voters as well as taxpayers." *In re the Incurring of State Debts*, 19 R. I. 610, 613. As all the inhabitants of the state, men, women and children, citizens and aliens are interested in the franchise, and as all cannot fish for lobsters, and but comparatively few do, it is manifest that if the interests of all are to be conserved the fishing must be carried on for the ultimate benefit of the people of the state and not merely for the profit and emolument of the fishermen engaged in the business, whose conduct in the premises must be unselfish enough to include the interests of those who cannot personally attend to the matter. According to the United States census for the year 1910 the total population of this state was 542,610, and according to the report of the Commissioners of Inland Fisheries, there were, in the year 1909, engaged in lobster fishing in the public waters of the state, 381 men, and there were used for the purpose during that year, 248 boats and 23,220 lobster pots. The commissioners also estimated the number of pounds of lobsters taken in that year from the public waters of the state to be 1,395,983. Even if we

should assume the amount to be in round numbers 1,575,000 pounds, and estimate the population of the state for the year 1909 to be 525,000, an equal division by weight of the lobsters taken, among the inhabitants of the state, would give each person three pounds. It is self evident that each person does not annually get, and never can get, his or her proportional part of the total catch of lobsters in any year, therefore a division of the catch of lobsters among the people of the state cannot be considered to be a feasible way in which to preserve the rights of the people in the lobster fishery. If there was to be such a division of the catch among the people, it would be proper to pay the fishermen a fair price for their labor, a fair return for the capital invested, a fair amount for wear and tear of boats, tackle and fishing-gear, and such other items as are usually considered in mercantile adventures of this sort. It goes without saying that people of the state residing in portions of its territory remote from the sea-shore could hardly afford, even if it were possible for them to do so, to go to the shore and attempt to engage in lobster fishing merely for the purpose of obtaining what they might deem to be their fair share of lobsters from the public waters of the state. All children of tender years, the aged and infirm, together with delicate women would be absolutely debarred from participation in a fishery in which all are interested. In such circumstances it is necessary to consider how the people of the state may receive the greatest benefit from the conservation of their interests in this regard. The great majority of the people undoubtedly have heretofore bought and in the future will be obliged to buy their lobsters, therefore it is for their interest to have them plentiful and cheap. And by the immutable law of supply and demand, when unhampered by other influences, cheapness will result from plenty. Free and unrestrained fishing might, for a time, seem to accomplish that result because thereby more lobsters would be taken and placed for sale upon the market, but without regard to the age, size or condition of the same. Without protection from the rapacity of man, lobsters inevitably must become scarcer, and consequently dearer. This has been the costly experience of all

countries where the experiment has been tried. The natural tendency to kill the goose that lays the golden egg is always exhibited when the opportunity is afforded. And when anyone, attempting to stay the unsparing hand of the despoiler, suggests that something should be saved for posterity he is likely to receive this interrogative reply: Why should we care for posterity, what has it ever done for us? After us, the deluge. It is necessary that man should be saved from the consequences of his own selfishness, thoughtlessness and wastefulness in the matter of fisheries. And for this purpose an ounce of prevention is worth a pound of cure.

In this connection the following quotation from the report of the Commissioners of Inland Fisheries for the year 1908, is deemed pertinent:

“The statistics of the lobster fishery, which have been gathered for the last five years, are more nearly completed than those of any other branch of the fisheries of the State, and, for several reasons, these data are just now of paramount importance. For many years this industry had been evidently waning, so that the outlook had become extremely serious, and numerous and various remedies were suggested. This was the situation in 1901 when the General Assembly passed laws that could be enforced and placed their enforcement in the hands of the Commission of Inland Fisheries. These laws, designed to protect young lobsters and egg-lobsters, have, since 1901, been conscientiously enforced as far as possible by your Commission and their deputies. In 1900, also, the lobster propagating establishment at your Commission’s Wickford station began to get practical results, which have increased in importance from year to year. Since the work of propagation and enforcement of the laws regulating lobster fishery began, there has been a remarkable increase in the catch of lobsters. This is a fact which is commonly known to all those interested, and one which requires no statistical proof. However, statistics do confirm this fact and would seem to answer definitely the much-discussed question whether or not artificial propagation and protective regulation can be effective in maintaining the lobster industry.

"The total catch of lobsters in the State has increased from 376,994 pounds in 1904 to 1,471,344 pounds in 1908, an increase of 1,094,350 pounds. That this unparalleled increase is not spasmodic or accidental is evidenced by the steady increase in consecutive years:

1904	1905	1906	1907	1908
376,994	499,300	671,914	929,423	1,471,344

"That the increase is not referable to the introduction of statistics from additional localities is shown by the statistics from Newport alone, which are summarized as follows:

1904	1905	1906	1907	1908
226,994	301,659	353,573	581,189	665,009

"It is known that the total number of lobster pots has very greatly increased, and to this fact one might be inclined to attribute the increased catch. The facts are otherwise; for, while the number of pots had increased from 7,935 in 1904 to 20,011 in 1908 (more than 250 per cent.), the catch per pot has not shown a proportionate decrease. On the contrary, despite this great multiplication of pots the catch per pot not only shows no decrease, but has actually increased approximately fifty per cent. The following is the catch per pot for the past five years:

1904	1905	1906	1907	1908
48—	54+	59+	76+	74—

"Making allowance for the usual feeling of uncertainty in depending upon statistics where the issue is close, there can be no reasonable doubt that the vast improvement in the condition of the lobster industry in this State in the last decade is real. For a sharp contrast with the situation here, we introduce the following quotation from the 'Fishing Gazette,' which needs no comment, but which recalls the statements of ten years ago regarding the condition of our own lobster industry: 'The market for canned lobster continues somewhat depressed not only in the American market but also abroad. Stocks are fairly heavy. Newfoundland advices are that lobsters are almost

completely fished out around the whole coast. Cannerymen who once put up three thousand cases cannot produce two hundred now.'

" 'The St. John's (N. F.) 'Trade Review' says: "There is no use mincing matters. The present deplorable condition of our lobster fishery is due entirely to the cowardice of the government, who are afraid to carry out the law. They have a regulation calling for a defined length of lobster for packing, but they know that this law is broken every day in the year; but, fearing to lose the fisherman's vote, they will not prosecute. Thus it goes on year after year, the available lobsters becoming smaller and smaller, until at present it sometimes takes the meat of thirty or forty fish to fill a one-pound can.' ('Fishing Gazette,' Jan. '09, p. 103.)' "

From time to time, for many years, the legislature of this State has enacted statutes for the preservation of game and fish and by Pub. Laws, cap. 920, passed Mar. 21, 1871, provided for the appointment of commissioners of inland fisheries whose duties, *inter alia*, were "to introduce, protect and cultivate fishing in our inland waters." The protection of lobsters was afterwards intrusted to them and in their report, to the General Assembly for the year 1909, it appears that during the preceding eleven years they have been engaged in hatching, rearing and liberating lobsters for the benefit of the people of the State and that more than a million lobsters have been propagated and liberated by them in the past ten years, and they claim that for several years their annual output of such lobsters had been many times greater than that from any of the several stations engaged in like work, both in this country and abroad. It also appears from the same report that the expense to the State for laboratory, services and expenses of deputies under the lobster law, and for egg-lobsters purchased, for that year amounted to over ten thousand dollars. The report of said commissioners for the year 1908, already alluded to, contains the following remarks relative to the lobster fishery and also concerning an act which afterwards became the statute now under consideration: "On account of the present importance of the industry and the increased difficulties and

expense of enforcing the protective legislation, your Commissioners have recommended to the consideration of your Honorable Body certain changes in the present law which they believe will facilitate its enforcement and give a fairer return to the citizens of the State, to whom these valuable natural resources belong, and upon whom rests the responsibility and expense of maintenance. These recommendations are embodied in 'An act in substitution of Chapter 969 of the Public Laws, passed at the January session, A. D. 1902, entitled 'An act in substitution of Chapter 857 of the Public Laws, passed at the January session, A. D. 1901, entitled 'An act for the better protection of the lobster fisheries,' " introduced into the Senate. The provision in the act substituting, for the present method of measuring the lobster from tip of bone on head to the end of tail, the measurement of the body shell alone, will be of great convenience to fishermen and deputies alike. It leaves the legal length of the lobster unchanged, and has the distinct advantage that it will do away with the common practice of stretching of lobsters just under the legal length. This practice has not only given rise to irritating disputes, but has been the means of destroying great numbers of young lobsters which are killed by the stretching, whether they prove to be of legal length or not. The new method has been in force for a year or more in Maine, and has proved very satisfactory. The provision in the proposed law requiring all persons engaged in the lobster fishery to be licensed is also strongly recommended by your Commissioners. It should also be stated that the Conference of the Fish Commissioners of the New England States, held in Boston in December, 1908, at the instance of Governor Guild, formally and unanimously resolved to approve of the licensing of lobster fisherman as an admirable procedure, and that the Fish Commissioners of Maine and Connecticut at least, have recommended the provision to their respective legislatures. Some of the advantages of the license provision are: "The greater ease and accuracy of keeping track of lobster fishermen; the providing of an appropriate punishment for willful violation of the law, by revoking the license; the partial compensation to the

State for the use of these natural resources and for the expense of the enforcement of the protective legislation. The provision in the proposed act which limits the privileges of the lobster fishery to citizens commends itself to the approval of your Commissioners on the general ground that the fishery is one of those natural resources of much importance which has not been developed by individual enterprise, and also on the ground that the citizens of the State, through their General Assembly, are bearing the expense of the maintenance and development of the lobster fishery."

It thus appears that the General Assembly has authorized the expenditure of, and that there has been expended, a liberal amount of money for the purpose of not only preserving, but if possible of increasing the supply of lobsters for the benefit of the people of the State. It would be of little benefit to the people of the State if lobsters were hatched, cared for during a critical period of their existence and until they attained an age and strength sufficient to enable them to protect themselves against their natural foes, if they were to be liberated without the protection of the law against the cupidity of man. In such circumstances there would be little hope of increase on their part. No one will deny that lobsters are animals *ferae naturae* and that those which inhabit the public waters of the State are the common property of the people of the State until caught and when caught by one having the right to fish for them belong to him who thus reduced them to captivity. This condition calls loudly for the exercise of the police power of the State if the subject comes within the purview of that power. It hardly needs the citation of authority to convince any reflecting person that it does, but fortunately authorities are not lacking on the subject and a few will suffice. As was said by Mr. Justice, now Chief Justice White, in *Geer v. Connecticut*, 161 U. S. 519, *et seq.*: "From the earliest traditions the right to reduce animals *ferae naturae* to possession has been subject to the control of the law-giving power," and again, "The common law of England also based property in game upon the principle of common ownership, and therefore treated it as subject to

governmental authority," and further (p. 527): "The practice of the government of England from the earliest time to the present has put into execution the authority to control and regulate the taking of game.

"Undoubtedly this attribute of government to control the taking of animals *ferae naturae*, which was thus recognized and enforced by the common law of England, was vested in the colonial governments, where not denied by their charters, or in conflict with grants of the royal prerogative. It is also certain that the power which the colonies thus possessed passed to the States with the separation from the mother country, and remains in them at the present day, in so far as its exercise may be not incompatible with, or restrained by, the rights conveyed to the Federal government by the Constitution. Kent, in his Commentaries, states the ownership of animals *ferae naturae* to be only that of a qualified property. 2 Kent, Com. 347. In most of the States laws have been passed for the protection and preservation of game. We have been referred to no case where the power to so legislate has been questioned, although the books contain cases involving controversies as to the meaning of some of the statutes. *Commonwealth v. Hall*, 128 Mass. 410; *Commonwealth v. Wilkinson*, 139 Penn. St. 298; *People v. O'Neil*, 71 Michigan, 325. There are also cases where the validity of some particular method of enforcement provided in some of the statutes has been drawn in question. *Kansas v. Saunders*, 19 Kansas, 127; *Territory v. Evans*, 2 Idaho, 658.

"The adjudicated cases recognizing the right of the States to control and regulate the common property in game are numerous. In *McCready v. Virginia*, 94 U. S. 391, the power of the State of Virginia to prohibit citizens of other States from planting oysters within the tide waters of that State was upheld by this court. In *Manchester v. Massachusetts*, 139 U. S. 240, the authority of the State of Massachusetts to control and regulate the catching of fish within the bays of that State was also maintained. See also *Phelps v. Racey*, 60 N. Y. 10; *Magner v. People*, 97 Illinois, 320; *American Express Co., v.*

People, 133 Illinois, 649; *State v. Northern Pacific Express Co.*, 58 Minnesota, 403; *State v. Rodman*, 58 Minnesota, 393; *Ex parte Maier*, 103 California, 476; *Organ v. State*, 56 Arkansas, 267, 270; *Allen v. Wyckoff*, 48 N. J. Law, 90, 93; *Roth v. State*, 51 Ohio, St. 209; *Gentile v. State*, 29 Indiana, 409, 415; *State v. Farrell*, 23 Mo. App. 176, and cases there cited; *State v. Saunders*, *ubi sup.*; *Territory v. Evans*, *ubi sup.*

“Whilst the fundamental principles upon which the common property in game rests have undergone no change, the development of free institutions has led to the recognition of the fact that the power or control lodged in the State, resulting from this common ownership, is to be exercised, like all other powers of government, as a trust for the benefit of the people, and not as a prerogative for the advantage of the government, as distinct from the people, or for the benefit of private individuals as distinguished from the public good. Therefore, for the purpose of exercising this power, the State, as held by this court in *Martin v. Waddell*, 16 Pet. 367, represents its people, and the ownership is that of the people in their united sovereignty. The common ownership, and its resulting responsibility in the State, is thus stated in a well considered opinion of the Supreme Court of California:

“ ‘The wild game within a State belongs to the people in their collective sovereign capacity. It is not the subject of private ownership except in so far as the people may elect to make it so; and they may, if they see fit, absolutely prohibit the taking of it, or traffic and commerce in it, if it is deemed necessary for the protection or preservation of the public good.’ *Ex parte Maier*, *ubi sup.*

“The same view has been expressed by the Supreme Court of Minnesota, as follows:

“ ‘We take it to be the correct doctrine in this country, that the ownership of wild animals, so far as they are capable of ownership, is in the State, not as a proprietor but in its sovereign capacity as the representative and for the benefit of all its people in common.’ *State v. Rodman*, *ubi sup.*

“The foregoing analysis of the principles upon which alone rests the right of an individual to acquire a qualified ownership in game, and the power of the State, deduced therefrom, to control such ownership for the common benefit, clearly demonstrates the validity of the statute of the State of Connecticut here in controversy. The sole consequence of the provision forbidding the transportation of game, killed within the State, beyond the State, is to confine the use of such game to those who own it, the people of that State. The proposition that the State may not forbid carrying it beyond her limits involves, therefore, the contention that a State cannot allow its own people the enjoyment of the benefit of the property belonging to them in common, without at the same time permitting the citizens of other States to participate in that which they do not own. It was said in the discussion at the bar, although it be conceded that the State has an absolute right to control and regulate the killing of game as its judgment deems best in the interests of the people, inasmuch as the State has here chosen to allow the people within her borders to take game, to dispose of it, and thus cause it to become an object of State commerce, as a resulting necessity such property has become the subject of interstate commerce, and is hence controlled by the provisions of article 1, section 8 of the Constitution of the United States. But the errors which this argument involves are manifest. It presupposes that where the killing of game and its sale within the State is allowed, that it thereby becomes commerce in the legal meaning of that word. In view of the authority of a State to affix conditions to the killing and sale of game, predicated as is this power on the peculiar nature of such property and its common ownership by all the citizens of the State, it may be well doubted whether commerce is created by an authority given by a State to reduce game within its borders to possession, provided such game be not taken, when killed, without the jurisdiction of the State. The common ownership imports the right to keep the property, if the sovereign so chooses, always within its jurisdiction for every purpose. The qualification which forbids its removal from the State necessarily

entered into and formed part of every transaction on the subject, and deprived the mere sale or exchange of these articles of that element of freedom of contract and of full ownership which is an essential attribute of commerce. Passing, however, as we do, the decision of this question, and granting that the dealing in game killed within the State, under the provision in question, created internal State commerce, it does not follow that such internal commerce becomes necessarily the subject-matter of interstate commerce, and therefore under the control of the Constitution of the United States. The distinction between internal and external commerce and interstate commerce is marked, and has always been recognized by this court. In *Gibbons v. Ogden*, 9 Wheat, 1, 194, Mr. Chief Justice Marshall said:

“ ‘It is not intended to say that these words comprehend that commerce, which is completely internal, which is carried on between man and man in a State, or between different parts of the same State, and which does not extend to or affect other States. Such a power would be inconvenient and certainly unnecessary.

“ ‘Comprehensive as the word ‘among’ is, it may very properly be restricted to that commerce which concerns more States than one. The phrase is not one which would probably have been selected to indicate the completely interior traffic of a State, because it is not an apt phrase for that purpose; and the enumeration of the particular classes of commerce to which the power was to be extended would not have been made, had the intention been to extend the power to every description. The enumeration presupposes something not enumerated; and that something, if we regard the language or the subject of the sentence, must be the exclusively internal commerce of the State. The genius and character of the whole government seem to be that its action is to be applied to all the external concerns of the nation, to those internal concerns which affect the States generally, but not to those which are completely within a particular State, which do not affect other States, and with which it is not necessary to interfere, for the purpose of executing some of the general powers of the government. The completely internal commerce of a State, then, may be considered as reserved for the State itself.’

“So, again, in *The Daniel Ball*, 10 Wall. 557, 564, this court, speaking through Mr. Justice Field, said:

“ ‘There is undoubtedly an internal commerce which is subject to the control of the States. The power delegated to Congress is limited to commerce ‘among the several States,’ with foreign nations and with Indian tribes. This limitation necessarily excludes from the Federal control, commerce not thus designated, and of course that commerce which is carried on entirely within the limits of a State and does not extend to or affect other States.’

“The fact that internal commerce may be distinct from interstate commerce, destroys the whole theory upon which the argument of the plaintiff in error proceeds. The power of the State to control the killing of and ownership in game being admitted, the commerce in game which the State law permitted, was necessarily only internal commerce, since the restriction that it should not become the subject of external commerce went along with the grant and was a part of it. All ownership in game killed within the State came under this condition, which the State had the lawful authority to impose, and no contracts made in relation to such property were exempt from the law of the State consenting that such contracts be made, provided only they were confined to internal and did not extend to external commerce.

“The case in this respect is identical with *Kidd v. Pearson*, 128 U. S. 1. The facts there considered were briefly as follows: The State of Iowa permitted the distillation of intoxicating liquors for ‘mechanical, medicinal, culinary and sacramental purposes.’ The right was asserted to send out of the State intoxicating liquors made therein on the ground that, when manufactured in the State, such liquors became the subject of interstate commerce, and were thus protected by the Constitution of the United States; but this court, through Mr. Justice Lamar, pointed out the vice in the reasoning, which consisted in presupposing that the State had authorized the manufacture of intoxicants, thereby overlooking the exceptional purpose for which alone such manufacture was permitted. So here the

argument of the plaintiff in error substantially asserts that the State statute is an unqualified right to kill game, when in fact it is only given upon the condition that the game killed be not transported beyond the state limits. It was upon this power of the State to qualify and restrict the ownership in game killed within its limits that the court below rested its conclusion, and similar views have been expressed by the courts of last resort of several of the States. In *State v. Rodman*, 58 Minnesota, 393, 400, the Supreme Court of Minnesota said:

“ ‘The preservation of such animals as are adapted to consumption as food or to any other useful purpose, is a matter of public interest; and it is within the police power of the State, as the representative of the people in their united sovereignty, to make such laws as will best preserve such game, and secure its beneficial use in the future to the citizens, and to that end it may adopt any reasonable regulations, not only as to time and manner in which such game may be taken and killed, but also imposing limitations upon the right of property in such game after it had been reduced to possession. Such limitations deprive no person of his property, because he who takes or kills game had no previous right of property in it and when he acquires such right by reducing it to possession he does so subject to such conditions and limitations as the legislature has seen fit to impose.’ See, also, *State v. Northern Pacific Express Co.*, 58 Minnesota, 403.

“So, also, in *Magner v. The People*, 97 Illinois, 320, 333, the Supreme Court of Illinois said:

“ ‘So far as we are aware it has never been judicially denied that the government under its police powers may make regulations for the preservation of game and fish, restricting their taking and molestation in certain seasons of the year, although laws to this effect, it is believed, have been enforced in many of the older states since the organization of the Federal Government. . . . The ownership being in the people of the State, the repository of the sovereign authority, and no individual having any property rights to be affected,

it necessarily results that the legislature, as the representative of the people of the State, may withhold or grant to individuals the right to hunt and kill game or qualify or restrict as in the opinions of its members will best subserve the public welfare. Stated in other language, to hunt and kill game is a boon or privilege, granted either expressly or impliedly by the sovereign authority—not a right inherent in each individual, and consequently nothing is taken away from the individual, when he is denied the privilege at stated seasons of hunting and killing game. It is, perhaps, accurate to say that the ownership of the sovereign authority is in trust for all the people of the State, and hence by implication it is the duty of the legislature to enact such laws as will best preserve the subject of the trust and secure its beneficial use in the future to the people of the State. But in any view, the question of individual enjoyment is one of public policy and not of private right.’

“See also *Ex parte Maier*, 103 California, 476; *Organ v. The State*, 56 Ark. 267., It is, indeed, true that in *State v. Saunders*, 19 Kansas, 127, and *Territory v. Evans*, 2 Idaho, 658, it was held that a State law prohibiting the shipment outside of the State of game killed therein violated the interstate commerce laws of the Constitution of the United States, but the reasoning which controlled the decision of these cases is, we think, inconclusive from the fact that it did not consider the fundamental distinction between the qualified ownership in game and the perfect nature of ownership in other property, and thus overlooked the authority of the State over the property in game killed within its confines, and the consequent power of the State to follow such property into whatever hands it might pass with the conditions and restrictions deemed necessary for the public interests.

“Aside from the authority of the State, derived from the common ownership of game and the trust for the benefit of its people which the State exercises in relation thereto, there is another view of the power of the State in regard to the property in game, which is equally conclusive. The right to preserve game flows from the undoubted existence in the State of a police power to that end, which may be

none the less efficiently called into play, because by doing so interstate commerce may be remotely and indirectly affected. *Kidd v. Pearson*, 128 U. S. 1; *Hall v. De Cuir*, 95 U. S. 485; *Sherlock v. Alling*, 93 U. S. 99, 103; *Gibbons v. Ogden*, 9 Wheat. 1. Indeed, the source of the police power as to game birds (like those covered by the statute here called in question) flows from the duty of the State to preserve for its people a valuable food supply. *Phelps v. Racey*, 60 N. Y. 10; *Ex parte Maier, ubi sup.*; *Magner v. The People, ubi sup.*, and cases there cited. The exercise by the State of such power therefore comes directly within the principle of *Plumley v. Massachusetts*, 155 U. S. 461, 473. The power of a State to protect by adequate police regulations its people against the adulteration of articles of food (which was in that case maintained), although in doing so commerce might be remotely affected, necessarily carries with it the existence of a like power to preserve a food supply which belongs in common to all the people of the State, which can only become the subject of ownership in a qualified way, and which can never be the object of commerce except with the consent of the State and subject to the conditions which it may deem best to impose for the public good."

The entire subject is therefore one clearly within the police power of the State and the power of the General Assembly in the premises is not abridged by the provisions of Article 1, section 17 of the Constitution. As we said in the case of *Payne & Butler v. Providence Gas Co.*, 31 R. I. 295-326: "No greater privileges were reserved to the people than they already had and no powers or rights of the General Assembly were thereby abridged. Therefore, the whole subject of fisheries, floating and shell-fish, and all kinds of shell-fish, whether oysters, clams, quahaugs, mussels, scallops, lobsters, crabs or fiddlers, or however they may be known and designated and wherever situate within the public domain of the State of Rhode Island, are under the fostering care of the General Assembly. It is for the legislature to make such laws and regulations, governing the subject of lobster-culture, oyster-culture, clam-culture, or any other kind of pisciculture, as they may deem expedient. They may regulate the public or private

fisheries. They may even prohibit free fishing for a time and for such times as in their judgment it is for the best interest of the State so to do. They may withhold from the public use such natural oyster beds, clam-beds, scallop beds or other fish beds as they may deem desirable. They may make a close time within which no person may take shell-fish or other fish, and generally they have complete dominion over fisheries and fish as well as all kinds of game. We find no limitation, in the constitution, of the power of the General Assembly to legislate in this regard, and they may delegate the administration of their regulations to such officers or boards as they may see fit." And in the case of *State v. Nelson*, *Ibid*, 264, 270, we held that the legislature has plenary power in the premises.

There are many things that cannot be done directly by the inhabitants of the State. The framers of the constitution recognized the fact that the elective franchise could not be exercised by all of the people of the State, and therefore provision was made in the constitution of the State for electors who should have the right to vote as therein prescribed, and Article II of the Constitution is devoted to the purpose of prescribing the qualifications of electors. Among the prime requisites therein enumerated are those of citizenship and residence in the State for a period of one year, in the case of real estate voters, and two years in all other cases. These constitutional provisions are not only indicative of the will of the people in this particular, but may well serve as a guide to the legislature in the consideration of cognate subjects concerning which the constitution is silent. A citizen is one who owes allegiance to the State, is interested in its welfare, and therefore is entitled to receive especial consideration from the State. Electors are particularly favored. Const. Art. IX, sec. 1. "No person shall be eligible to any civil office (except the office of school committee), unless he be a qualified elector for such office." Even in the law regulating the sale of intoxicating liquor, which can hardly be said to be the exercise of a State franchise, licenses can only be granted to citizens resident within the State. Gen. Laws, 1909, cap. 123, sec. 2. We have already seen that it is

impossible for every one of the people of the State personally to exercise the franchise of fishing for lobsters in the public waters of the State, and that if such fishing is to be done for all it must be done by agents in order that the people may receive the benefits thereof. It is also clear that the fishery must be regulated in such a manner as not to exhaust the supply of lobsters; that the mode and method of such regulation is a matter solely for the consideration of the general assembly, and that their action in the premises is not subject to review except upon constitutional grounds. We are of the opinion that in the consideration of the subject the legislature might well follow the precedent established in the constitution in regard to the qualification of electors and make citizenship and residence within the State essential qualifications for the agents to be licensed to fish for lobsters upon the public fishing grounds. The public fishing grounds are limited in extent and area and the territory within such limits is subject to the control of the general assembly. All persons, citizens and aliens, residents and non-residents alike, must obey the laws enacted by the legislature relative thereto. The territorial limits and jurisdiction of the State are defined in Gen. Laws, 1909, cap. 1, §§ 1 and 2, as follows: "Section 1. The territorial limits of this state extend one marine league from its seashore at high-water mark. When an inlet or arm of the sea does not exceed two marine leagues in width between its headlands, a straight line from one headland to the other is equivalent to the shore line. The boundary of counties bordering on the sea extends to the line of the state, as above defined. Sec. 2. The jurisdiction of the state shall extend to, and embrace, all places within the boundaries thereof, except as to those places that have been ceded to the United States, or have been purchased by the United States with the consent of the state." Over the vast domain without the territorial limits above defined, the state has no jurisdiction and the legislature no control and the hardy fishermen of all countries, whether from New England or the Ionian Isles may freely fish upon the shoals and ledges beneath the boundless sea for the crustaceans that may there be found, without let or hinderance.

No attempt has been made in the statute under consideration to impose restrictions upon them outside of the public fishing grounds of the state. Without doubt the rights of free fishery, above alluded to, have been and will continue to be freely exercised with gain and profit, dearly-earned and well-deserved. On the vast highway of nations there is ample room and verge enough to exercise the trade of fishing to their hearts content, either in the capacity of employer or employed and no question of citizenship or residence can arise to disturb them.

In these circumstances we are unable to perceive that the rights of any person have been infringed. On the contrary, it seems to us that the greatest good of the greatest number will be advanced by the legislation complained of. We are therefore of the opinion that the constitutional questions aforesaid must be severally answered in the negative. We do not find that any of the requirements of the Constitution of the United States or of the Constitution of this State, referred to in the questions certified to us, have been violated by the provisions of Pub. Laws, cap. 437, secs. 1 and 2 (passed May 7, 1909). So far as appears in these cases no duly qualified citizen has been refused a license to fish for the people's lobsters in the public waters of the State. For aught that appears all qualified applicants for such fishing licenses have received them. We are of the opinion that the enactment of the statute in question was a proper exercise of the police power by the legislature of the State, in a matter concerning only the people of the State, and that it was entirely unnecessary for the legislature to consider what effect the statute under consideration would have upon aliens, or even upon the citizens of other states, because it merely involved the conservation of one species of shell-fish in the public waters of the State, a purely local natural resource, and that the legislature has full discretion to prescribe the modes and methods to be followed in the accomplishment of such conservation.

Having thus decided the questions certified to us, the papers in each case with our decision certified thereon will be sent back to the District Court of the First Judicial District for further proceedings.

APPENDIX B.

LIST OF FEDERAL AND STATE FISHERIES AUTHORITIES.

1911-1912.

DEPARTMENT OF COMMERCE AND LABOR.

BUREAU OF FISHERIES, WASHINGTON, D. C.

Commissioner of Fisheries.....GEORGE M. BOWERS.
Deputy Commissioner.....DR. HUGH M. SMITH.
Chief Clerk.....IRVING H. DUNLAP.

ASSISTANTS IN CHARGE OF DIVISIONS.

Inquiry Respecting Food Fishes.....DR. H. F. MOORE.
Alaska Fisheries.....DR. BARTON W. EVERMAN.
Statistics and Methods.....ALVIN B. ALEXANDER.
Architect and Engineer.....HECTOR VON BAYER.

ALABAMA.

DEPARTMENT OF GAME AND FISH.

John H. Wallace, Jr., *Commissioner*.....Montgomery.

ARKANSAS.

NO FISHERIES BOARD.

ARIZONA.

FISH AND GAME COMMISSIONERS.

Phoenix, Arizona.

Theo. T. Swift.....Safford.
V. V. Merino.....Flagstaff.
W. L. Pinney, Secretary.....Phoenix.

CALIFORNIA.

BOARD OF FISH AND GAME COMMISSIONERS.

San Francisco, California.

F. M. Newbert, <i>President</i>	Sacramento.
Carl Westerfield.....	San Francisco.
M. J. Connel.....	Los Angeles.
E. Schaeffle, <i>Secretary</i>	San Francisco.

COLORADO.

DEPARTMENT OF GAME AND FISH.

J. A. Shinn, <i>Commissioner</i>	Denver.
R. Borchardt, <i>Deputy Commissioner</i>	Denver.
R. L. Spargur, <i>Chief Clerk</i>	Denver.
W. E. Patrick, <i>Gen. Supt., State Hatcheries</i>	Denver.

CONNECTICUT.

COMMISSION OF FISHERIES AND GAME.

Room 64, State Capitol, Hartford.

Frank W. Hewer, M. D., <i>President</i>	Groton.
Frank O. Davis.....	Putnam.
E. Hart Greer, <i>Secretary</i>	Hadlyme.

CONNECTICUT SHELL FISH COMMISSION.

Rooms 301-303 Exchange Bldg., New Haven.

George C. Waldo.....	Bridgeport.
Christian Swartz.....	South Norwalk.
John H. Clarke.....	New Haven.

DELAWARE.

COMMISSIONER OF FISH AND FISHERIES.

Richard C. Carrow.....	Camden.
------------------------	---------

GEORGIA.

SUPERINTENDENT OF FISHERIES.

A. T. Dallis.....	La Grange.
-------------------	------------

IDAHO.

FISH AND GAME DEPARTMENT.

Boise, Idaho.

Ben. R. Gray, <i>Warden</i>	Boise.
F. M. Kendall, <i>Chief Deputy</i>	Twin Falls.
F. C. Cliff, <i>Clerk</i>	Boise.
George Cornell, <i>Supt., Heyburn Park</i>	Chatcolet.

ILLINOIS.

BOARD OF FISH COMMISSIONERS.

R. R. Meento, <i>President</i>	Ashkum.
E. E. Caldwell, <i>Chief Warden</i>	Havana.
S. P. Bartlett, <i>Secretary and Superintendent</i>	Quincy.
Dr. S. A. Forbes, <i>Zoologist</i>	Urbana.

INDIANA.

COMMISSIONER OF FISHERIES AND GAME.

George W. Miles.....	Indianapolis.
----------------------	---------------

IOWA.

FISH AND GAME WARDEN.

George A. Lincoln.....	Cedar Rapids.
------------------------	---------------

KANSAS.

STATE FISH AND GAME WARDEN.

Prof. L. L. Dyche.....	Pratt.
------------------------	--------

KENTUCKY.

No State Fisheries Board.

Fisheries in charge of the Department of Agriculture, Labor, and Statistics.

M. C. Rankin, <i>Commissioner</i>	Frankfort.
---	------------

LOUISIANA.

BOARD OF BIRD, GAME, AND FISH COMMISSIONERS.

605 Maison Blanche Building, New Orleans.

Frank Miller, <i>President, Ex-officio Chief Warden</i>	New Orleans.
F. J. Grace, <i>Commissioner</i>	Baton Rouge.
W. R. Dodson, <i>Commissioner</i>	Baton Rouge.
L. J. Dussman, <i>Superintendent Oyster Department</i>	Opelousas.
Frank T. Payne, <i>Chief Surveyor</i>	New Orleans.
Amos L. Ponder, <i>Attorney</i>	Amite.
C. S. E. Babington, <i>Secretary</i>	Covington.

MAINE.

COMMISSIONERS OF INLAND FISHERIES AND GAME.

Augusta, Maine.

J. W. Brackett, <i>Chairman</i>	Phillips.
Blaine S. Viles.....	Augusta.
Edgar E. King, <i>Secretary</i>	Orono.

COMMISSIONER OF SEA AND SHORE FISHERIES.

James Donohue.....Rockland.

MARYLAND.

STATE FISH COMMISSION.

John H. Wade, *Commissioner for Western Shore*.....Boomsboro.
 Samuel Twilley, *Commissioner for Eastern Shore*.....Pocomoke City.

SHELL FISH COMMISSION.

311-312 Marine Bank Bldg., Baltimore, Md.

Walter J. Mitchell, *Chairman*.....La Plata.
 Benj. K. Greene, *Treasurer*.....Westover.
 Dr. Caswell Grave, *Secretary*.....Baltimore.

MASSACHUSETTS.

COMMISSION OF FISHERIES AND GAME.

State House, Boston, Mass.

Dr. G. W. Field, *Chairman*.....Boston.
 George H. Graham, *Superintendent of Hatcheries*.....Springfield.
 George H. Garfield.....Brockton.

MICHIGAN.

STATE BOARD OF FISH COMMISSIONERS.

D. H. Power, *President*.....Suttons Bay.
 Fred Postal, *Vice-President*.....Detroit.
 Walter J. Hunsaker.....Saginaw.
 Seymour Bower, *Superintendent*.....Detroit.

STATE GAME, FISH, AND FORESTRY WARDEN DEPARTMENT.

Major Wm. R. Oates, *Warden*.....Lansing.
 David R. Jones, *Chief Deputy Warden*.....Petosky.

MINNESOTA.

BOARD OF GAME AND FISH COMMISSIONERS.

George J. Bradley, *President*.....Norwood.
 Jos. A. Wessel, *1st Vice-President*.....St. Paul.
 O. J. Johnson, *2nd Vice-President*.....St. Paul.
 Henry A. Rider, *Executive Agent*.....Little Falls.
 E. W. Cobb, *Superintendent of Fisheries*.....St. Paul.
 E. L. Ogilvie, *Secretary*.....St. Paul.

COMMISSIONERS OF INLAND FISHERIES.

MISSISSIPPI.

BOARD OF OYSTER COMMISSIONERS OF MISSISSIPPI.

Gulfport, Miss.

Duncan Minor, <i>President</i>	Ocean Springs.
F. S. Hewes, Jr., <i>Secretary</i>	Gulfport.

MISSOURI.

MISSOURI STATE FISH COMMISSION.

L. A. Geserich, <i>President</i>	St. Louis.
Ed. Lee, <i>Vice-President</i>	St. Louis.
W. S. Willard, <i>Secretary</i>	St. Joseph.
Edward Willoughby.....	Windsor.
Richard Porter.....	Paris.

SUPERINTENDENT OF HATCHERIES.

Phillip Knopplin.....	St. Louis.
M. E. O'Brien.....	St. Joseph.

MONTANA.

MONTANA STATE FISH COMMISSION.

E. P. Mathewson, <i>Chairman</i>	Anaconda.
George E. Doll, <i>Secretary</i>	Pleasant Valley.
Henry Avare, <i>State Game Warden</i>	Helena.
C. F. Healea, <i>Superintendent State Fish Hatchery, member ex-officio</i> ...	Anaconda.

NEBRASKA.

NEBRASKA GAME AND FISH COMMISSION.

Governor, <i>Commissioner ex-officio</i>	Lincoln.
Henry N. Miller, <i>Chief Warden</i>	Lincoln.
W. J. O'Brien, <i>Superintendent of Hatcheries</i>	Gretna.

NEW HAMPSHIRE.

FISH AND GAME COMMISSION.

Nathaniel Wentworth, <i>Chairman</i>	Hudson Center.
Charles B. Clarke, <i>Secretary and Financial Agent</i>	Concord.
Frank P. Brown.....	Whitefield.

NEVADA.

STATE FISH COMMISSION OF NEVADA.

Carson, Nevada

George T. Mills, <i>Chairman</i>	Carson.
--	---------

NEW MEXICO.

TERRITORIAL GAME AND FISH WARDEN.

Thomas P. Gable, *Warden*.....Sante Fe.

NEW JERSEY.

FISH AND GAME COMMISSION.

Ernest Napier, *President*.....East Orange.
 William A. Logue, *Treasurer*.....Bridgeton.
 Percival Chrystie.....High Bridge.
 William A. Faunce.....Atlantic City.
 Walter H. Fell, *Secretary*.....Trenton.

STATE BUREAU OF SHELL FISHERIES.

Charles R. Bacon, *Chief*.....Haddonfield.

STATE OYSTER COMMISSION.

Edmund Stites, Jr.....Port Morris.
 Ernest L. Mumford.....Keyport.
 Ogden Sands.....South Dennis.
 William Schillingsburg.....Camden.
 Alonzo Bacon, *Superintendent and Secretary*.....Mauricetown.

NEW YORK.

FOREST, FISH, AND GAME COMMISSION.

Albany, N. Y.

H. LeRoy Austin, *Commissioner*.....Catskill.
 John J. Burnham, *Deputy Commissioner*.....Essex.
 John D. Whish, *Secretary*.....Albany.
 Dr. T. H. Bean, *State Fish Culturist*.....New York.
 Clifford R. Pettis.....Lake Clear.

NORTH CAROLINA.

STATE FISH COMMISSIONER.

Theodore S. Meekins.....Maneto.

SHELLFISH COMMISSIONER.

W. M. Webb.....Morehead City.

NORTH DAKOTA.

GAME AND FISH BOARD OF CONTROL.

Herman Winterer, *President*.....Valley City.
 J. L. Killion, *Vice-President*.....Towner.
 D. I. Armstrong, *Secretary*.....Willow City.
 J. B. Eaton..... Fargo.
 Thomas Griffiths.....Grand Forks.

GAME WARDENS.

W. N. Smith, <i>Chief Game Warden, District No. 1</i>	Grafton.
Olaf Bjerke, <i>Chief Game Warden, District No. 2</i>	Abercrombe.
R. W. Main, <i>State Fish Commissioner</i>	Cando.

OHIO.

FISH AND GAME COMMISSIONERS.

Paul North, <i>President</i>	Cleveland.
T. B. Paxton	Cincinnati.
J. F. Rankin	South Charlesto.
Gill McCook	Steubenville.
Walter C. Staley	Dayton.

OKLAHOMA.

STATE FISH AND GAME WARDEN.

John B. Doolin	Oklahoma City.
--------------------------	----------------

OREGON.

BOARD OF FISH AND GAME COMMISSIONERS.

Oregonean Building, Portland, Oregon.

C. F. Stone	Klamath Fall.
George H. Kelley	Eugene.
J. F. Hughes	Gold Hill.
M. J. Kenney	Portland.
C. K. Cranston	Pandleton.
W. L. Finley, <i>State Game Warden</i>	Portland.
R. E. Clanton, <i>Master Fish Warden</i>	Portland.

PENNSYLVANIA.

DEPARTMENT OF FISHERIES.

W. E. Meehan, <i>Commissioner</i>	Harrisburg.
John Hamberger	Erie.
Henry C. Cox	Wellsboro.
Andrew R. Whitaker	Phoenixville.
W. A. Leisenring	Mauch Chunk.

RHODE ISLAND.

COMMISSIONERS OF INLAND FISHERIES.

Charles W. Willard, <i>President</i>	Westerly.
William H. Boardman, <i>Vice-President</i>	Central Falls.
William P. Morton, <i>Secretary</i>	Providence.
Adelbert D. Roberts, <i>Auditor</i>	Woonsocket.
Isaac H. Clarke, <i>Treasurer</i>	Jamestown.
Daniel B. Fearing	Newport.
William R. Rose	Tiverton.

COMMISSIONERS OF SHELL FISHERIES.

Philip H. Wilbour, <i>Chairman</i>	Little Compton.
John H. Northup.....	Apponaug.
Edward Atchison.....	Slatersville.
Samuel F. Bowden.....	Barrington.
John C. Wilcox.....	R. F. D., No. 1, Westerly.

SOUTH CAROLINA.

THE BOARD OF FISHERIES OF SOUTH CAROLINA.

James M. Rhett, <i>Chairman</i>	Beaufort.
L. C. A. Roessler.....	Charleston.
James W. Moore.....	Hampton.

SOUTH DAKOTA.

STATE GAME WARDEN.

W. F. Bancroft.....	Pierre.
---------------------	---------

TENNESSEE.

GAME, FISH, AND FORESTRY DEPARTMENT.

Joseph H. Acklen, <i>State Warden</i>	Nashville.
---	------------

TEXAS.

STATE, GAME, FISH, AND OYSTER COMMISSION.

Wm. G. Starrett, <i>Commissioner</i>	Austin.
Jeff D. Cox, <i>Chief Deputy</i>	Austin.

UTAH.

STATE, GAME, AND FISH COMMISSIONER.

Fred W. Chambers.....	Salt Lake City.
-----------------------	-----------------

VERMONT.

COMMISSIONER OF FISHERIES AND GAME.

John W. Titcomb.....	Lyndonville.
----------------------	--------------

VIRGINIA.

COMMISSION OF FISHERIES.

W. McDonald Lee, <i>Commissioner</i>	Irvington.
S. Wilkins Matthews, <i>Secretary</i>	Oak Hall.
George B. Keezell.....	Keezleton.
J. M. Hooker.....	Stuart.
Bland Massie.....	Tyro.

COMMISSIONERS OF INLAND FISHERIES.

WASHINGTON.

DEPARTMENT OF FISHERIES AND GAME.

BOARD OF FISH COMMISSIONERS.

Governor M. E. Hay.....	Olympia.
State Treasurer, John C. Lewis.....	Olympia.

STATE FISH COMMISSIONER AND GAME WARDEN.

John L. Riseland, Office, <i>Daylight Block</i>	Bellingham.
---	-------------

WEST VIRGINIA.

FOREST, GAME, AND FISH WARDEN.

J. A. Viquesemy.....	Bellington.
----------------------	-------------

WISCONSIN.

COMMISSIONERS OF FISHERIES.

The Governor, <i>ex-officio</i>	Madison.
Jabe Alford, <i>President</i>	Madison.
A. L. Osborn, <i>Vice-President</i>	Oskhosh.
Dr. E. A. Birge, <i>Secretary</i>	Madison.
B. C. Woltus.....	Appleton.
Jas. O. Davison.....	Madison.
George W. Peck.....	Milwaukee.
Jno. C. Burns.....	La Crosse.
James Nevin, <i>Superintendent of Fisheries</i>	Madison.

WYOMING.

WYOMING FISH COMMISSION.

John Ballie, <i>Commissioner, District No. 1</i>	Laramie.
R. O. Schleicher <i>Commissioner, District No. 2</i>	Story.

APPENDIX C.

TITLES OF SPECIAL PAPERS PUBLISHED IN THE ANNUAL REPORTS OF THE COMMISSIONERS OF INLAND FISHERIES OF THE STATE OF RHODE ISLAND.

1. MEAD, A. D. The Starfish. (First paper.) Twenty-eighth Annual Report. 1898.
2. MEAD, A. D. The Starfish. (Second paper.) Twenty-ninth Annual Report. 1899.
3. TOWER, R. W. Improvements in the Methods of Preparation of Fish for Shipment. Twenty-ninth Annual Report. 1899.
4. BUMPUS, H. C. The Extension of the Commercial Fisheries of the State. Twenty-ninth Annual Report. 1899.
5. KELLOG, J. L. The Life History of the Common Clam. Twenty-ninth Annual Report. 1899.
6. MASON, N. R. A List of the Diatoms Found in the Water over the Clam, Mussel, and Oyster Beds in Narragansett Bay. Thirtieth Annual Report. 1900.
7. MEAD, A. D. Observations on the Soft-shell Clam. Thirtieth Annual Report. 1900.
8. MEAD, A. D. Observations on the Soft-shell Clam. (Second paper.) Thirty-first Annual Report. 1901.
9. RISSER, J. R. Habits and Life History of the Scallop. Thirty-first Annual Report. 1901.
10. MEAD, A. D. Habits and Growth of Young Lobsters and Experiments in Lobster Culture. Thirty-first Annual Report. 1901.
11. MEAD, A. D. Observations on the Soft-shell Clam. (Third paper.) Thirty-second Annual Report. 1902.
12. MEAD, A. D. Habits and Growth of Young Lobsters and Experiments in Lobster Cultures (Second paper.) Thirty-second Annual Report. 1902.
13. MEAD, A. D. and WILLIAMS, L. W. Habits and Growth of the Lobster and Experiments in Lobster Culture. (Third paper.) Thirty-third Annual Report. 1903.
14. MEAD, A. D. and BARNES, E. W. Observations on the Soft-shelled Clam. (Fourth paper.) Thirty-third Annual Report. 1903.
15. MEAD, A. D. and BARNES, E. W. Observations on the Soft-shell Clam. (Fifth paper.) Thirty-fourth Annual Report. 1904.
16. BARNES, E. W. Preliminary Inquiry into the Natural History of the Paddler Crab (*Callinectes hastatus*) with Remarks on the Soft-shell Crab Industry of Rhode Island. Thirty-fourth Annual Report. 1904.
17. MEAD, A. D. Experiments in Lobster Culture. (Fourth paper.) Thirty-fourth Annual Report. 1904.
18. MEAD, A. D. Experiments in Lobster Culture. (Fifth paper.) Thirty-fifth Annual Report. 1905.
19. HADLEY, P. B. Changes in Form and Color in Successive Stages of the American Lobster. Thirty-fifth Annual Report. 1905.
20. EMMEL, V. E. The Regeneration of Lost Parts in the Lobster. Thirty-fifth Annual Report. 1905.
21. TRACY, H. C. A List of the Fishes of Rhode Island. Plates I-XII. Thirty-sixth Annual Report. 1906.
22. TRACY, H. C. The Common Fishes of the Herring Family. Plates VII-XII. Thirty-sixth Annual Report. 1906.

23. BARNES, E. W. Methods of Protecting and Propagating the Lobster, with a Brief Outline of its Natural History. Plates XIII-XXVI and XXVIII, XXXI, XXXII, XXXVI. Thirty-sixth Annual Report. 1906.
24. HADLEY, P. B. Regarding the Rate of Growth of the American Lobster. Plates XXVI-XXXVII, and XL. Thirty-sixth Annual Report. 1906.
25. HADLEY, P. B. Observations on Some Influences of Light upon the Larval and Early Adolescent Stages of *Homarus Americanus*. Plates XXXVIII-XL. Thirty-sixth Annual Report. 1906.
27. EMMEL, V. E. The Relation of Regeneration to the Molting Process in the Lobster. Plates XL-XLI. Thirty-sixth Annual Report. 1906.
28. TRACY, H. C. The Fishes of Rhode Island, III. The Fishes of the Mackerel Family. Thirty-seventh Annual Report, 1907.
29. TRACY, H. C. A List of Rare Fishes taken in Rhode Island in the year 1906. Thirty-seventh Annual Report, 1907.
30. WILLIAMS, DR. LEONARD W. List of the Rhode Island Copepoda, Phyllopoda, and Ostracoda, with new species of Copepoda. Thirty-seventh Annual Report, 1907.
31. EMMEL, V. E. Regenerated and Abnormal Appendages in the Lobster. Thirty-seventh Annual Report, 1907.
32. WILLIAMS, L. W. The Stomach of the Lobster and the Food of Larval Lobsters. Thirty-seventh Annual Report, 1907.
33. HADLEY, P. B. Regarding the Behavior of the Larval and Early Adolescent Stages of the American Lobster. Thirty-seventh Annual Report, 1907.
34. BARNES, E. W. Lobster Culture at Wickford, Rhode Island, in 1906. Thirty-seventh Annual Report, 1907.
35. BARNES, E. W. Lobster Culture at Wickford, Rhode Island in 1907. Thirty-eighth Annual Report, 1908.
36. TRACY, H. C. The Fishes of Rhode Island V. The Flatfishes. Thirty-eighth Annual Report, 1908.
37. TRACY, H. C. The Fishes of Rhode Island VI. A Description of two young Specimens of Squiteague (*Cynoscion regalis*) with Notes on the Rate of their Growth. Thirty-eighth Annual Report, 1908.
38. EMMEL, VICTOR E. The Problem of Feeding in Artificial Lobster Culture. Thirty-eighth Annual Report, 1908.
39. TRACY, H. C. The Fishes of Rhode Island VII. The Life History of the Common Eel. Thirty-ninth Annual Report 1909.
40. SULLIVAN, W. E. Notes on the Crabs Found in Narragansett Bay. Thirty-ninth Annual Report, 1909.
41. MEAD, A. D. A Method of Fish Culture and of Transporting Live Fishes. Thirty-ninth Annual Report, 1909. (Paper Presented Before the Fourth International Fishery Congress, Washington, 1908.)
42. MEAD, A. D. A Method of Lobster Culture. Thirty-ninth Annual Report, 1908. (Paper Presented Before the International Fishery Congress Washington, 1909.)
43. TRACY, H. C. Annotated List of Fishes Known to Inhabit the Waters of Rhode Island. Fortieth Annual Report, 1910.
44. BARNES, E. W. Notes on the Spring and Summer Fishing in Deep Water off Newport, During the Years 1905-1909. Fortieth Annual Report, 1910.
45. BARNES, E. W. The Plague of Sea Clams at Easton's Beach, Newport. Fortieth Annual Report, 1910.
46. HADLEY, P. B. Additional Notes Upon the Development of the Lobster. Fortieth Annual Report, 1910.
47. BARNES, E. W. Revised Edition of Methods of Protecting and Propagating the Lobster, with a Brief Outline of its Natural History. Plates IV-XXIV. Forty-first Annual Report, 1911.

